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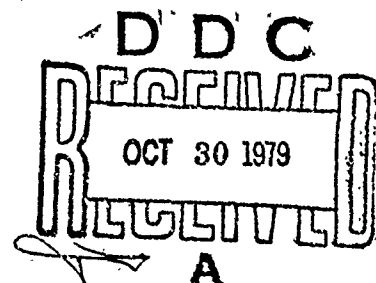
**DEVELOPMENT OF A MEASURE OF ARMY  
LEADERSHIP CLIMATE: THE MILITARY  
LEADERSHIP BEHAVIOR SURVEY**

Ronald G. Downey

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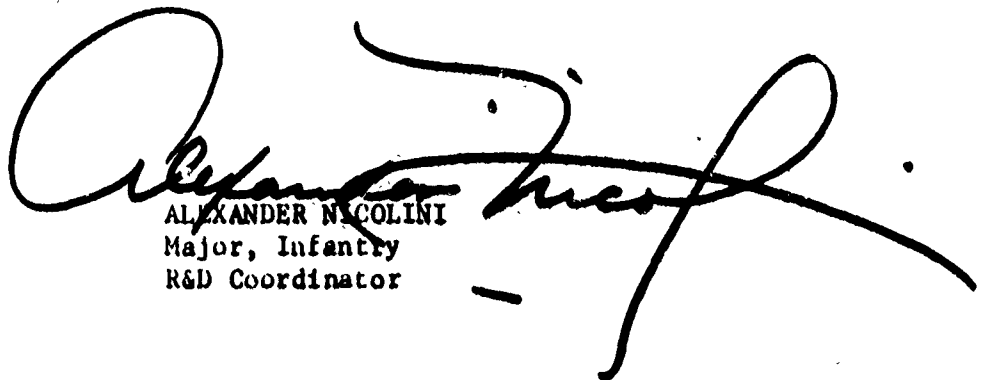
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Research Problem Review 74-5

6 DEVELOPMENT OF A MEASURE OF ARMY LEADERSHIP CLIMATE:  
THE MILITARY LEADERSHIP BEHAVIOR SURVEY.

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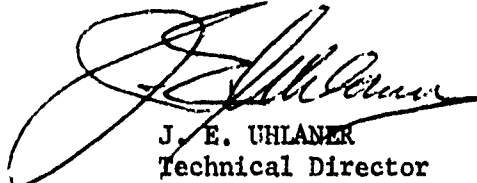
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## FOREWORD

The Leadership Performance Technical Area of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) is concerned with research that is designed to improve the effectiveness of Army leadership training, devise and develop new procedures and instruments and improve existing procedures and instruments for the assessment of leadership potential, provide integrated effort on the Officer Personnel Management System (OPMS), and contribute to selection and assessment technology with basic data for use in assessment systems. The present publication is concerned with developing a method of measurement of facets of the leadership climate in the Army. A questionnaire was developed, the Military Leadership Behavior Survey, which can be used to assess the primary dimensions of leadership and present a subjective tri-focal view of a leader's behavior that can be of great value in leadership training programs.

ARI research in this area is conducted as an in-house effort augmented by research contracts with organizations in possession of unique capabilities for leadership training research. The present project was done jointly by personnel of the Human Resources Research Organization, Alexandria, Virginia, and of the Army Research Institute. The entire work unit is responsive to requirements of the Deputy Chief of Staff for Personnel, as well as the general objectives of RDTE Project 2Q162107A712, FY 1974.

  
J. E. UHLANER  
Technical Director

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# DEVELOPMENT OF A MEASURE OF ARMY LEADERSHIP CLIMATE: THE MILITARY LEADERSHIP BEHAVIOR SURVEY

## BRIEF

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### Requirement:

To develop a valid and reliable survey instrument capable of providing long term assessments of quality and effectiveness trends in the Army leadership climate.

### Method:

A questionnaire used by the CONARC Leadership Board study in 1971 was modified and expanded, in order to better define and measure specific aspects of leadership and to check the reliability of the resulting scores and their relation to other measures. The modified 77-item questionnaire was mailed to Army officers and enlisted personnel; and 1,751 tests were analyzed. From these analyses the Military Leadership Behavior Survey (MLBS) was developed, in which a superior, self, or subordinate view is asked, for each of 53 questions about specific actions, on what the leader DOES and what the leader SHOULD do. The answers delineate four primary leadership dimensions, Task Professionalism, Task-Oriented Consideration, Person-Oriented Consideration, and Personal/Interpersonal Professionalism.

### Findings:

The Military Leadership Behavior Survey reflects a subjective view of the leader's behavior which correlates with his actual behavior and which may greatly influence the actions of unit personnel and can be dealt with most effectively by educational programs. The four leadership dimensions identified by the MLBS appear to be reliable and consistent, and correlate well with the dimensions of leadership identified in earlier industrial and military research.

### Utilization of Findings:

Subjective perceptions of a leader's behavior identified by the MLBS can provide valuable feedback as part of leadership training programs. Also, the relation of leadership dimensions to perceived job satisfaction by unit personnel suggests that these dimensions may be indicators of potential problems even when a unit or individual may seem to be performing satisfactorily.

The MLBS is not suitable for evaluative or punitive use, but properly used in a leadership training program can now be operational in its potential for upgrading the quality of leadership in the Army.

DEVELOPMENT OF A MEASURE OF ARMY LEADERSHIP CLIMATE:  
THE MILITARY LEADERSHIP BEHAVIOR SURVEY

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## DEVELOPMENT OF A MEASURE OF ARMY LEADERSHIP CLIMATE: THE MILITARY LEADERSHIP BEHAVIOR SURVEY

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### BACKGROUND

The concept of leadership in the U. S. Army of the 1970's has been changed by a variety of new environmental pressures. The movement to an all volunteer force has placed increased pressures on the leaders to attend to the concerns of the individual soldier in ways which were not as crucial in the past. In addition, changing societal patterns have input to the Army different types of individuals who view leadership in a different way. The complexity of behavioral styles in our country has placed an increasing burden on the Army leader to open new lines of communication to the ranks in order to bridge these social and motivational differences and enable him to develop a more effective unit for mission accomplishment.

In 1969 a West Point conference on "Leadership in the Post-70's"<sup>1</sup> pointed out that the Army of the future will be responding to and dealing with a changed environment, that the selection process of leaders is a complex problem, and that the training and development of these future leaders will have to rely on new and improved techniques. The conference made the following recommendations:

1. Research should be expanded on leadership problems that include changing values, need for new skills, need for increased sense of involvement, upward communication, relationship of leadership to career commitment, improved measures of leadership ability, and fit of the right man to the job.
2. Periodic conferences on leadership should be held to focus on identified problem areas and to establish better communication between practitioners and theoreticians.
3. Personnel management, including the development of sensitivity to the values and goals of subordinates, should be stressed from the NCO and junior officer level to the highest level of military training.

More recently, research has indicated that enlisted personnel spoke of leadership as the aspect of Army life which they were most dissatisfied.<sup>2</sup> General Norris highlighted this problem in his review:

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<sup>1</sup> U.S. Military Academy. Leadership in the Post-70's. A Leadership Workshop Conference, sponsored by the Deputy Chief of Staff for Personnel, U.S. Army and the Superintendent, U.S. Military Academy. West Point, June 1969.

<sup>2</sup> Gitter, A.G. and S. K. Pinto. Social indicators of the military: assessing the quality of life in the U. S. Army. Technical Report. Boston: Boston Area Academic Consortium, 1973.

"The principal implications of the sociological revolution apparently rest in the leadership field, because it certainly poses new dimensions of difficulty and complexity to military leaders at all echelons from corporal to four stars."<sup>3</sup> The present research program was started against this background.

In 1972 the Director of Human Resources Development, Office of the Deputy Chief of Personnel, requested a measure of Leadership Climate which would enable the Army to chart the past and present status of the leadership climate in operating units. ARI,<sup>4</sup> in responding to the request, pointed out the need for basic research in the development of more germane research techniques. Crucial to the issues was the definition of leadership climate. For this study, climate has been defined as the concept referring to the totality of behaviors and perceptions in which individuals in a unit engage (also important individuals who impact on the unit). Specifically, this study concerns the perceptions of the individuals as reported in the survey, which may or may not correspond to actual behaviors of the leader. Note that while the actual leadership behaviors are very important, how they are perceived by individuals in the unit is the primary determinant of the individual's subsequent behavior, even if that perception is not correct. Prior studies at Ohio State University<sup>5, 6, 7</sup> have established the value of this line of research. Later studies<sup>8, 9</sup> utilized a leadership climate survey technique similar to the Ohio State work for studying the climate of leadership in the Army. The first step in the ARI research program was to determine the relationship between the work from the industrial community and on-going efforts in the Army.

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- <sup>3</sup> U.S. Army Chief of Staff. Review of Army Officer Educational System. Washington, D.C., 1971.
- <sup>4</sup> Memorandum, RDMR-IS, Army Research Institute for the Behavioral and Social Sciences, 9 August 1972, subject: Comments on the OCSA Proposal for Assessing Progress in Improving Leadership in the Army.
- <sup>5</sup> Hemphill, J. K. Leader behavior description. Columbus, Ohio: Ohio State University Personnel Research Board, 1950. (a)
- <sup>6</sup> Hemphill, J. K. Situational factors in leadership. Columbus, Ohio: Ohio State University Bureau of Educational Research, 1950. (b)
- <sup>7</sup> Halpin, A. W. and B. J. Winer. Studies in aircrew composition: The leadership behavior of the airplane commander. Columbus, Ohio: Ohio State University Personnel Research Board, 1952.
- <sup>8</sup> U.S. Army War College. Leadership for the 1970's. Carlisle Barracks, Pa., 1971.
- <sup>9</sup> U.S. Continental Army Command. Leadership for Professionals. Fort Monroe, Va., 1971. (CONARC redesignated U.S. Army Training and Doctrine Command--TRADOC--in 1973.)

## OBJECTIVES

The long-term objective of this program was the development of a way to determine individual perceptions of leadership behaviors and to use these perceptions in a program for leadership training, development, and change. The specific goal of the project which this paper reports was to develop the instrumentation necessary to measure individual perceptions by: 1) Determining the underlying dimensions of leadership behavior; 2) determining if the perceptions and/or dimensions differ by specified sub-groups in the Army; 3) insuring that the resultant technique would have adequate psychometric properties; 4) determining the relationship between results from the Army and similar industrial applications; 5) insuring, if possible, that similar prototype studies in the Army can be utilized for comparisons; 6) determining appropriate environmental constraints and limitations; and 7) exploring of the relationship between this approach to understanding leadership and other means of leadership evaluations.

## PLANNING CONSIDERATIONS

### LEADERSHIP CLIMATE IN INDUSTRY

Before describing the actual research, it is appropriate to elaborate on similar efforts and findings. The initial work was done as part of the Ohio State Leadership Studies (OSLS) in the early 1950's. In an excellent review of the OSLS work, Fleishman<sup>10</sup> pointed out that the original studies were concerned with the identification of the underlying dimensions of leadership utilizing subordinates' perception of leader behavior. The first study<sup>11</sup> identified two major factors, Consideration and Initiation of Structure, and two minor factors, Production Emphasis and Social Sensitivity. As Fleishman pointed out, these same factors have to a greater or lesser degree been replicated in a variety of situations and cultures. The two major dimensions have been defined<sup>12</sup> as:

Consideration. Items with high positive loadings on this factor were associated with behavior indicative of friendship, mutual trust, respect, and a certain warmth between the leader and his group. High negative loadings appeared on items which suggest that the leader is arbitrary and impersonal in his relations with group members.

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<sup>10</sup> Fleishman, E. A. Twenty years of consideration and structure. In Fleishman, E. A. and J. G. Hunt (Eds.), Current Developments in the Study of Leadership. Carbondale, Ill.: Southern Illinois University Press, 1974.

<sup>11</sup> Halpin and Winer, 1952, op. cit.

<sup>12</sup> Fleishman, E. A., E. F. Harris and H. E. Burt. Leadership and supervision in industry: an evaluation of a supervisory training program. Columbus, Ohio: Ohio State University Bureau of Educational Research, 1955.

Initiating Structure. Items with high positive loading on this factor imply that the leader organizes and defines the relationship between himself and the members of the group. He tends to define the role which he expects each member to assume, and endeavors to establish well-defined patterns of organization, channels of communication, and ways of getting the job done.

These two major factors have been found to be related to the performance of the group and the leaders in very complex ways. For example, the individuals who are most likely to be successful in a unit are the ones who are high on both dimensions.<sup>13</sup> The minor factors noted by Halpin and Winer,<sup>14</sup> Production Emphasis and Social Sensitivity, had fewer items and a less clearcut factor structure, tended to be highly related to the first two factors, and therefore, are not usually scored.

While Fleishman<sup>15</sup> views the preponderance of the research findings as supporting the value of the Consideration and Initiating Structure factors, other reviewers have been less positive about the findings.<sup>16</sup> Subordinate perceptions of the leadership situation have been much used by the behavioral scientist.

#### LEADERSHIP EVALUATION

The perception of the quality of leadership can either be the view of the person himself or reports from peers, subordinates or, usually, superiors. The potential for subjective differences between these views is great. Also important to the evaluation of leadership is the development of objective measures of leader attributes. The value of leadership measurements rests on the degree of objectivity of the individual evaluating the performance. Helme and Willemin have indicated that leadership behavior is "a product of the interaction of personal attitudes, however acquired, with the demands of the real-life situation in which that 'leadership behavior' takes place."<sup>17</sup> Research has detailed

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<sup>13</sup> Fleishman, E. A. and E. F. Harris. Patterns of leadership behavior related to employee grievances and turnover. Personnel Psychology, 1962, 15, 43-56.

<sup>14</sup> Halpin and Winer, 1952, op. cit.

<sup>15</sup> Fleishman, 1974, op. cit.

<sup>16</sup> Korman, A. K. "Consideration," "Initiating Structure," and organizational criteria--a review. Personnel Psychology, 1966, 19, 349-361.

<sup>17</sup> Helme, W. H. and L. P. Willemin. The evaluation of leadership potential. In U.S. Military Academy, 1969, op. cit. Pp. 128-150.

the problems of the lack of relationships between the personal attributes of the leader and his effectiveness.<sup>18,19</sup> As both Stogdill and Gibb have pointed out, the effectiveness of the leader is a synthesis of the attributes of both the leader and the situation. There is increasing evidence that the individual officer who performs well as a leader in a combat situation differs from a leader who performs well in other situations.<sup>20,21,22</sup> Therefore, an evaluation of leadership must be conducted with a specific type of situation or the evaluations must represent a cross section of the situations which the leaders will encounter. A cross-sectional approach recognizes that in an environment such as the military, where leaders are selected at an early time and trained and further selected over time, effective leadership skills can be identified for a restricted set of situations. This is based on the assumption that many differences between leader effectiveness can be attributed to influences of the individual and not just the "fortuitous demands of the environment."<sup>23</sup>

Stogdill has identified individual characteristics which were found to be related to effective leader performance. Even more pertinent to the military is the identification of the major factors of leadership in a simulated combat situation.<sup>24</sup> These factors are presented in Figure 1 and defined in Table 1. Eight major factors clearly delineated a differentiation between the combat and the technical/managerial domains of officer leadership. It should also be noted that another difference between perceptions and evaluations is the degree to which the technique used to describe the behavior must gauge the correctness, value, or utility of the behavior. In general, the perceptions theoretically are not concerned with whether the behavior is right or wrong, only that it occurs. The evaluation of these behaviors can only be made after the fact, in terms of conventional concepts of production and mission accomplishment.

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<sup>18</sup> Stogdill, R. M. Personal factors associated with leadership: a survey of the literature. Journal of Psychology, 1948, 25, 35-71.

<sup>19</sup> Gibb, C. A. "Leadership." In Lindzey, G. and E. Aronson (Eds.) Handbook of Social Psychology, 2nd ed., Vol. 4. Reading, Mass: Addison-Wesley, 1969. Pp. 205-282.

<sup>20</sup> Helme, W. H., L. P. Willemin, and F. C. Grafton. Prediction of officer behavior in a simulated combat situation. ARI Research Report 1182, March 1974. (AD 779 445)

<sup>21</sup> Helme, W. H., L. P. Willemin and F. C. Grafton. Dimensions of leadership in a simulated combat situation. ARI Technical Research Report 1172, July 1971. (AD 730 315)

<sup>22</sup> Helme, W. H., L. P. Willemin, and R. W. Day. Psychological factors measured in the Differential Officer Battery. ARI Technical Research Report 1173, July 1971. (AD 737 685)

<sup>23</sup> Stogdill, R. M. Handbook of leadership: a survey of theory and research. New York: Free Press, 1974.

<sup>24</sup> Helme, Willemin and Grafton, 1971, op. cit.

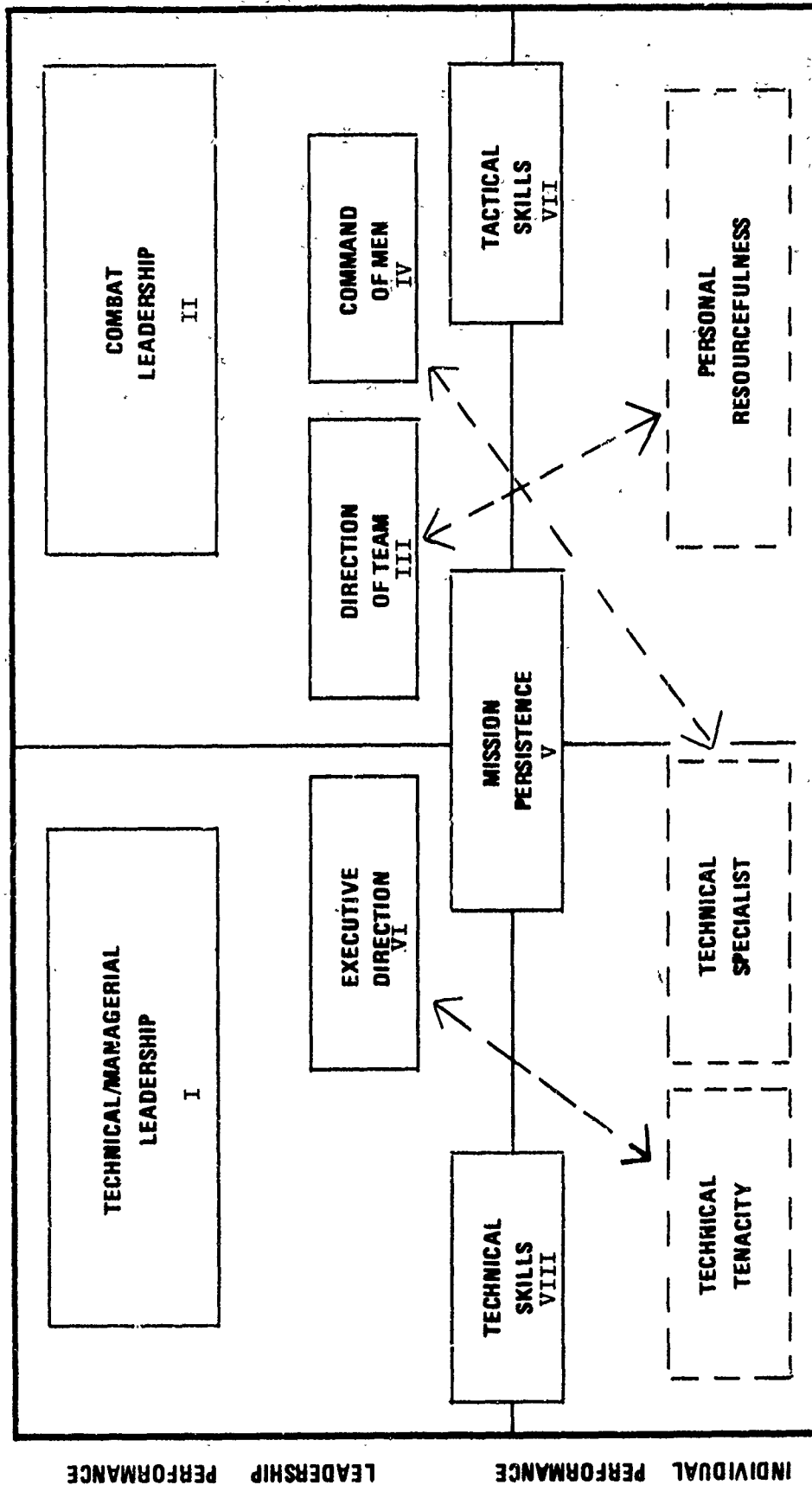


Figure 1. Major factors of officer leadership

Table 1

MAJOR FACTORS IN OFFICER LEADERSHIP

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Factor I--Technical/Managerial Leadership. Emphasizes effective problem solving in support of combat operations. Behavior is characterized by well-organized planning, reporting, and follow-through under varying degrees of stress, also a generally competent manner which transcends the technical/managerial versus combat differentiation.

Factor II--Combat Leadership. Reflects effective conduct of combat missions with appropriate utilization of men and materiel for a given situation. Key behaviors are decisive response to emergencies, clear direction, and active example. The central combat-effectiveness aspect is associated with forcefulness and assurance of manner and consideration for men. The successful combat officer also relies on his knowledge of tactical matters and his skill in performing specific activities.

Factor III--Team Leadership as opposed to Personal Resourcefulness. Has a two-fold aspect: Team-oriented behavior implies accepting personal responsibility for carrying out command missions, training and utilizing men, providing on-site security, understanding the mission, keeping cool, and reporting effectively to superiors, while personal resourcefulness implies self-reliance, individual courage, endurance, and personal commitment in difficult dangerous situations. This factor represents a continuum from reliance on oneself to reliance on the team to accomplish the objective. At best, reliance on oneself is leadership by example; reliance on the team involves effective deployment and utilization of men.

Factor IV--Command of Men. Suggests a commander who effectively employs men as contrasted to a technical specialist as in individual staff work. Components of the command aspect are direct command and control in a field operation, timely decision making, face-to-face leadership of men in combat, and motivating men to accomplish the mission. Components of the technical specialist aspect are technical jobs in areas such as automotive inspection, assessing a captured weapon, computing radiation levels, selecting depot sites.

Factor V--Mission Persistence. Involves persistence in carrying out orders, and willingness to devote effort and to risk personal safety for a goal. The officer accepts his role as an instrument in pursuing mission goals in different situations--establishing a roadblock, keeping combat reconnaissance teams going, resisting enemy interrogation. Behavior is characterized by commitment and assurance, and consideration of men that includes necessary discipline to protect the health and safety of the unit, effective assignment of men, and careful preparation for action. This factor did not belong predominantly in either the technical/managerial domain or the combat domain but generalized across tasks in both.

Factor VI--Executive Direction. Requires decisive, timely action as well as organizing ability, endurance, and maintenance of technical competence under stress, in a variety of situations--combat security mission, selection of depot sites, assessing damage from enemy action, and the like. Where face-to-face contact is of prime importance, effectiveness seems to depend on perseverance and oral communication with a generally favorable impression on subordinates, peers, and superiors. Also important is individual technical tenacity in which the officer applies decisiveness, organizing ability, and special knowledge in solving technical/managerial problems on his own rather than through the organizational structure.

Factor VII--Tactical Staff Skills. Depends on the application of specialized knowledge and skills in combat operations--deployment of troops, using or setting up networks of facilities, combat zone communications, and how to accomplish these and other combat operations effectively.

Factor VIII--Technical Staff Skills. Involves specific technical/managerial knowledge and skills in logistics and support of combat activities. This factor is characterized by practical application of knowledge of material in a setting requiring effective staff relations.

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## ARMY WAR COLLEGE STUDY

In the same field, the Army War College (AWC) has established an item pool and survey methodology.<sup>25</sup> Utilizing the concepts of Structure and Consideration previously discussed, a modified adaptation of the Leader Behavior Description Questionnaire (LBDQ) was developed at the Army War College. The items from the LBDQ focus on the behaviors of the leader. For example, rather than asking if the leader is good in overall communications you would ask how well the leader actually communicates with his subordinates. The question calls for a statement about the specific behavior of the leader and not a general evaluation of his performance. The AWC items are listed in Table 2.

Adopting a strategy used by the Ohio State studies, three points of view of leadership were called for. They were the superior's view of the leader's behavior, leader's view of his own behavior (self), and the subordinate's view of the leader's behavior. The complete set of items was administered to all subjects.

For each item of behavior three questions were asked:

1. Does he DO it?
2. SHOULD he do it?
3. Is it IMPORTANT that he do it?

For each item, the respondent marked a point on a 7-point scale from "Always" to "Never" for DO and SHOULD and also a point on a 7-point scale from "Extremely" to "Not at all" for IMPORTANT. Data from 1751 military subjects were collected by the AWC.

## CONARC LEADERSHIP BOARD STUDY<sup>26</sup>

In response to a concern of the Chief of Staff of the Army, "the evident need for immediate attention by the chain of command to improving our leadership techniques to meet the Army's current challenges,"<sup>27</sup> a CONARC Leadership Board was formed to improve Army leadership and to develop a program of leadership improvement for the established institutions. The program which was developed included, at each post:

- 1) Briefing of installation commander.

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<sup>25</sup> U. S. Army War College, 1971, op. cit.

<sup>26</sup> Since 1973, CONARC redesignated U. S. Army Training and Doctrine Command (TRADOC).

<sup>27</sup> U. S. Continental Army Command, 1971, op. cit.



Table 2

## ORIGINAL LEADERSHIP BEHAVIORS USED IN THE ARMY WAR COLLEGE SURVEY

1. He was aware of the state of his unit's morale and did all he could to make it high.
2. He set the example for his men on and off duty.
3. He saw to it that people under him worked up to their capabilities.
4. He knew his men and their capabilities.
5. He criticized subordinates in front of others.
6. He let members of his unit know what was expected of them.
7. He approached each task in a positive manner.
8. He constructively criticized poor performance.
9. He was easy to understand.
10. He communicated effectively with his subordinates.
11. He counseled, trained, and developed his subordinates.<sup>a</sup>
12. He kept me informed of the true situation, good and bad, under all circumstances.
13. He treated people in an impersonal manner--like cogs in a machine.
14. He expressed appreciation when a subordinate did a good job.
15. He was thoughtful and considerate of others.
16. He set high standards of performance.
17. He saw that subordinates had the materials they needed to work with.
18. He was selfish.
19. He stifled the initiative of his subordinates.<sup>b</sup>
20. He stood up for his subordinates even though it made him unpopular with his superiors.
21. He offered new approaches to problems.
22. He rewarded individuals for a job well done.
23. He sought additional and more important responsibilities.
24. He was technically competent to perform his duties.
25. He was approachable.
26. He backed up subordinates in their actions.
27. He distorted reports to make his unit look better.
28. He criticized a specific act rather than an individual.
29. He was overly ambitious at the expense of his subordinates and his unit.
30. He hesitated to take action in the absence of instruction.
31. He failed to show an appreciation for priorities of work.
32. He gave detailed instructions on how the job should be done.
33. He demanded results on time without considering the capabilities and welfare of his subordinates.
34. He was willing to support his subordinates even when they made mistakes.<sup>c</sup>
35. He was willing to make changes in ways of doing things.
36. He took appropriate action on his own.
37. He resisted changes in ways of doing things.
38. He assigned immediate subordinates to specific tasks.
39. He let subordinates share in decision making.
40. He fought the problem.<sup>d</sup>
41. He drew a definite line between himself and his subordinates.
42. He refused to explain his actions to his subordinates.<sup>e</sup>
43. He ruled with an iron hand.<sup>f</sup>

Note. Footnotes indicate modifications made by CONARC Leadership Board:

<sup>a</sup> Item was later revised and divided into 2 items: "He counseled his subordinates" and "He trains and develops his subordinates."

<sup>b</sup> Item was later revised to "He makes it difficult for his subordinates to use initiative."

<sup>c</sup> Item was revised; "even when they make mistakes" was deleted.

<sup>d</sup> Item was dropped.

<sup>e</sup> Item retained and new item "He explains the reasons for his actions to his subordinates" was added

<sup>f</sup> Item was changed to: "He establishes and maintains a high level of discipline."

2) Workshop for senior commanders, enlisted and officer, on AWC leadership survey and report.

3) Workshop for senior commanders on social values, motivation, discipline, and leadership.

4) Administration of AWC survey to subordinates, E-4 through O-5.

5) Seminar for selected commanders and subordinates on social values, motivation, discipline, and leadership.

6) Analysis and interpretation of the AWC survey.

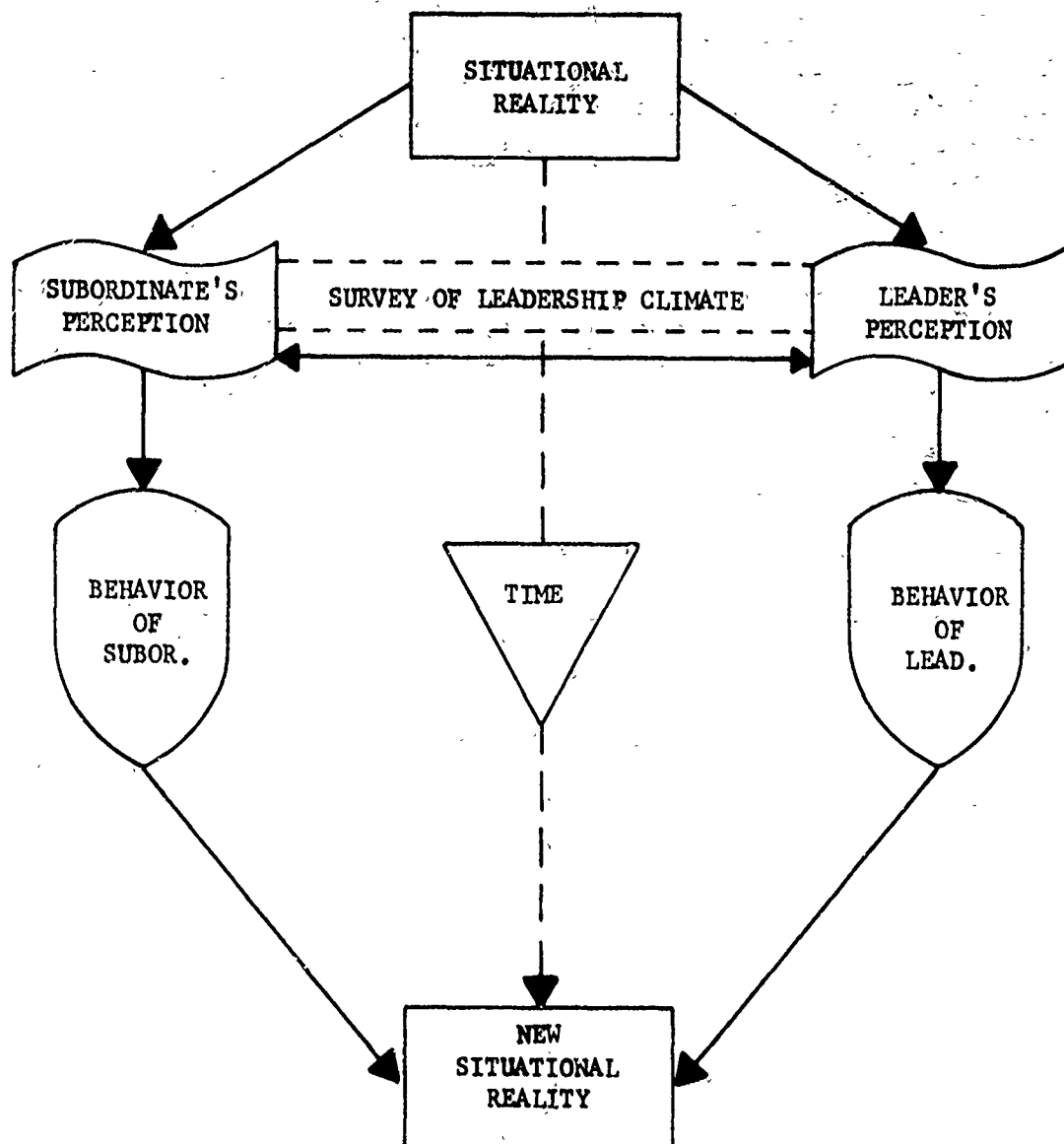
The survey used for this program was a slight modification of the AWC survey (see Table 2 for modifications). The survey was administered to over 30,000 Army officers and enlisted personnel. Approximately one-third of the sample used the superior, one-third the self, and one-third the subordinate viewpoint. The primary result was a leadership program which incorporates the survey and its results in the total program of leadership training. The leadership program was conducted by teams of specially trained officers; it is necessary that these officers be viewed as impartial by both officers and enlisted personnel within the command.

#### LEADERSHIP PERCEPTION

One of the principal points of this technique is the emphasis upon the perceptions of the individuals in a particular situation and the influence of these perceptions on their behavior. Figure 2 shows the factors influencing leader-subordinate behavior. While the objective situation may affect behavior, what an individual subjectively perceives the situation to be is at least as important. For example, the perception that a leader does not appreciate the work priorities may be a function of a variety of factors. It may be true, in which case, the leader should change his behavior; more probably, the subordinates have not received the proper training as to the goals of the organization. It could be a combination of both. The results may be outwardly the same but the methods used to correct the situation may differ greatly. The survey will pinpoint the problem; its cause and solution must still be determined. A program of leadership training and a diagnostic method of investigation of the problems will do this. The relationships between the perceptions of the leader and individual characteristics of the leader are very complex and not fully known.<sup>28</sup>

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<sup>28</sup> See Stogdill, 1974, op. cit.



- | <u>IF</u>                      |   | <u>THEN</u>                      |
|--------------------------------|---|----------------------------------|
| 1. MISPERCEPTION OF SITUATION  | → | IMPROVE INFORMATION AND TRAINING |
| 2. MISPERCEPTION OF PERCEPTION | → | IMPROVE COMMUNICATION            |

Figure 2. Relationship of situations to perceptions.

## THE ARI RESEARCH PROGRAM

Phase I. As reviewed previously, research indicated that the behaviors described in the survey could be more parsimoniously grouped. The major purpose of the first phase was to investigate the dimensions found in an Army environment by the CONARC Leadership Board study and to compare them to the OSLS dimensions of Consideration and Initiating Structure. Differences between the Army's leadership situation and the more conventional industrial situations might well lead to different results.

Phase II. The dimensions identified in the first phase required additional items to insure more adequate reliabilities and definitions. A final requirement was to determine the relationship of these dimensions to job satisfaction and to perceived unit and leader performance. This is the first effort at validation of the dimensions.

The results of the first phase also indicated a great deal of consistency between factors from subgroups; therefore, it would not be necessary to evaluate all viewpoints for factoring purposes.

The additional items were incorporated to form a new 77-item survey instrument. New items were selected: first, to represent the original LBDQ items which had been modified by the AWC study; second, to insure a greater stability of the dimensions found in the first phase of the research; and third, to increase the differentiation of one of the dimensions of the original survey. The new survey can be found in Appendix B. The items covering job satisfaction and perceived unit and leader performance are in Part III of the new survey (Appendix B).

## FINDINGS

### PHASE I LEADERSHIP CLIMATE DIMENSIONS

Analysis of the twelve samples presented in Figure 3 identified six dimensions of leadership climate. Only three of these dimensions were stable across all the samples. Figure 3 shows the six dimensions and the samples in which they were found. The three stable dimensions were defined as follows:

Professionalism. Denoted technical competence, high standards, a positive approach to attaining objectives, and the ability to make a fresh approach to problems.

Authoritarianism. Referred to behaviors which were inhibiting and negative; denoted resistance to change, selfishness, exaggerated ambition, corrosive criticism, impersonality, and insensitive demands.

← 12 SAMPLES →

DIMENSIONS	OFFICER						ENLISTED							
	DO			SHOULD			DO			SHOULD				
	1	2	3	1	2	3	1	2	3	1	2	3		
PROFESSIONALISM														= 12
AUTHORITARIANISM														= 11
CONSIDERATION-- TASK														= 10
CONSIDERATION-- NEED														= 4
SOCIAL SUPPORT														= 8
FACILITATOR														= 7
	1 = SUPERIOR			2 = SUBORDINATE			3 = SELF							


 DIMENSION FOUND IN THE SAMPLE

Figure 3. Phase I leadership climate dimensions.

Consideration: Task-Oriented. Characterized by concern for maintaining good communications, support for others, sharing decision making, rewarding good performance, and maintaining high performance.

Since only three dimensions were found in enough samples to be considered stable, the number of items which were identified with these dimensions was small; there was no replication of the Consideration and Initiating Structure dimensions of the original industrial measure. In addition, it was considered necessary to develop two specific dimensions of evaluation of leadership effectiveness and job satisfaction. These findings pointed to the need for developing a new questionnaire which would capitalize on the findings of the first phase but would possibly resolve some of the issues and difficulties.<sup>29</sup>

#### PHASE II LEADERSHIP CLIMATE DIMENSIONS

The findings from Phase II of the research that are reported in this section were abstracted from a larger report<sup>30</sup> which is included as the appendix in this report. They can be summarized in three parts. The first part deals with the findings from reanalysis of the underlying dimensions when the expanded questionnaire was used. The second part deals with the relationships among the dimension scores (sums of the items comprising the dimension), reliability of dimension scores, and the relationship of the scores to other important measures such as job satisfaction, leader performance, and the consideration and initiation of structure scores of the LBDQ. The last part considers relationships among the three questions, DO/SHOULD/IMPORTANT. The new survey developed in phase II of the research was mailed to 10,000 Army officer and enlisted personnel. The survey was composed of 77 items plus items on job satisfaction and leader performance, and background information from the rater. Given the consistency of the results from phase I over the three views (superior/self/subordinate), only the view of the subordinate was used. Approximately 1800 individuals returned the questionnaire for analysis.

The analysis of the phase II data yielded four dimensions. Two of these were identical to two of the stable dimensions found previously, Professionalism and Consideration-Task. The third dimension, Authoritarianism, split into two new dimensions (see Figure 4). The dimensions identified were:

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<sup>29</sup> Vaughan, M. R., R. E. Kriner, and J. M. Reaser. Military leadership in the seventies: Selected analyses. Human Resources Research Organization Report D2-73-2, June 1973.

<sup>30</sup> Reaser, J. M., M. R. Vaughan and R. E. Kriner. Investigation of perceptions of Army leadership: Development of a measuring technique. Human Resources Research Organization Report D7-74-133, February 1974.

NEEDS

	<u>JOB</u>	<u>PEOPLE</u>
<u>PROFESSIONAL</u>	I. <u>TASK PROFESSIONALISM</u>  COMPETENCY POSITIVE APPROACH TASK ACHIEVEMENT	IV. <u>PERSONAL/INTERPERSONAL PROFESSIONALISM</u>  PROFESSIONAL RELATIONSHIP FLEXIBILITY
	II. <u>TASK-ORIENTED CONSIDERATION</u>  SUPPORTING SUBORDINATES SETTING AN EXAMPLE PROVIDING REWARDS	III. <u>PERSON-ORIENTED CONSIDERATION</u>  GROUP WELFARE MORALE
<u>PERSONAL</u>		

Figure 4. Phase II leadership climate dimensions.

I--Task Professionalism. Characterized by the provision of structure in terms of scheduling, task-allocation, task-achievement, communication about task requirements, competency, and a positive approach.

II--Task-Oriented Consideration. Pertained to structuring by setting an example, reducing ambiguity in the work situation, approachability, supporting subordinates, and providing positive rewards.

III--Person-Oriented Consideration. Pertained to exhibiting consideration for members of the group, concern for group welfare and morale, and an open relationship with group members.

IV--Personal/Interpersonal Professionalism. Characterized by the leader's behavior in maintaining functional professional relationships--vertically and horizontally in the organization--and flexibility in active fulfillment of the responsibilities as leader.

Utilizing the dimensions just defined, scores were developed for each of the individuals. Relationships among scores were high for all dimensions. Relationships between the scores for the military dimensions and the Stogdill dimensions were also high. The relationship between the two LBDQ scales were similar to values for a civilian group. In addition, there were substantial relationships between the military leadership dimensions and the job satisfaction and leader performance scores.

Analysis indicated that reliability of the dimensions was adequate. The number of items selected for each dimension had been increased, which contributed to the reliability.

Relationships among the DO/SHOULD/IMPORTANT questions indicated a great deal of overlap between the SHOULD and IMPORTANT questions. There was less overlap between the SHOULD and DO and the IMPORTANT and DO scales. Essentially, an analysis of the DO/SHOULD/IMPORTANT scales indicated that the SHOULD and IMPORTANT scales measure the same thing. SHOULD and DO are relatively independent dimensions; this reduces the DO/SHOULD/IMPORTANT dimensions to DO/SHOULD.



## CONCLUSIONS

The ARI research program resulted in the development of a new survey technique for measuring leadership climate, The Military Leadership Behavior Survey (MLBS). The final survey is composed of 53 items used to describe the leader's behavior from the point of view of the superior or the self or the subordinate. For each of the items, two questions are asked: What does the leader do? What should he do? Eight scores will be produced, two (DO, SHOULD) per leadership dimension. The four leadership dimensions are: Task Professionalism, Task-Oriented Consideration, Person-Oriented Consideration, and Personal/Interpersonal Professionalism.

The survey reflects a subjective view of the leader's behavior which correlates imprecisely with his objective behavior. The subjective perceptions, not his objective behavior, influence the actions of unit personnel and can be dealt with most effectively by means of a comprehensive educational program to develop greater understanding. The MLBS can profitably be used as part of such a leadership program, similar to the CONARC Leadership Board's program<sup>31</sup> for feedback, training, and development. The MLBS is not appropriate for use as an evaluative or punitive procedure.

The dimensions of leadership identified by studies in the Army, while differing in emphasis and item content from similar efforts in industry, have an identifiable continuity with these industrial efforts. Table 3 compares the leadership dimensions from three separate research efforts--the Army's current effort, the Ohio State University Leadership Studies<sup>32</sup> and the Four-Factor Theory (F-FTQ) of Bowers and Seashore.<sup>33</sup> The relationship of the factors was determined on the basis of logic; however, some empirical support for the LBDQ and F-FTQ relationships exists.<sup>34</sup>

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<sup>31</sup> U.S. Continental Army Command, 1971, op. cit.

<sup>32</sup> Halpin and Winer, 1952, op. cit.

<sup>33</sup> Bowers, D. G. and S. E. Seashore. Predicting organizational effectiveness with a four-factor theory of leadership. Administrative Science Quarterly, 1966, 11, 238-263.

<sup>34</sup> Yunker, G. W. A comparison of two measures of leader behavior at the first level of management. Unpublished Master's thesis, Southern Illinois University, Carbondale, 1968.

Table 3

COMPARISON OF LEADERSHIP DIMENSIONS

ARMY - (MLBS)	OHIO STATE - (LBDQ)	BOWERS AND SEASHORE - (F-FTQ)
Task Professionalism--Behavior characterized by scheduling, task-allocation, task-achievement, communication of task requirements, competency, and positive approach	Production Emphasis--Behaviors which motivate the group to get the job done	Goal Emphasis--Behavior that stimulates an enthusiasm for meeting the group's goal or achieving excellent performance
Task-Oriented Consideration--Behaviors of setting an example, reducing ambiguity in the work situation, approachability, supporting subordinates, and providing positive rewards	Initiating Structure--Behaviors associated with organization and definition of relationship among group members to establish communication and way of getting the job done	Work Facilitation--Behavior that helps achieve goal attainment by such activities as scheduling, coordinating, planning, and by providing resources such as tools, materials, and technical knowledge
Person-Oriented Consideration--Behavior exhibiting consideration for member of the group, being concerned for group welfare and morale, and open-handed relationships with group members	Consideration--Behaviors associated with mutual trust, explaining actions, and willing to listen to and allow participation by subordinates	Support--Behavior that enhances someone else's feeling of personal worth and importance
Personal/Interpersonal Professionalism--Behavior characterized by maintenance of functional professional relationship and flexibility in fulfillment of responsibility as leader	Social Sensitivity--Characterized by behavior of a socially acceptable individual in his interactions with other group members	Interaction Facilitation--Behavior that encourages members of the group to develop close, mutually satisfying relationship

It should be pointed out that, in addition to specific item content, the dimensions of the Army MLBS differ as to their relative importance. TASK PROFESSIONALISM is the major dimension in the MLBS versus CONSIDERATION in the LBDQ. The major differences seem to be the relative importance of the dimensions and to some extent the specific behaviors involved, even though the types of behaviors are to some extent invariant across situations.

Investigation of the various psychometric properties of the MLBS indicated that the dimensions were reliable and consistent, but the degree of relationship among dimensions points to a tendency to respond from a generalized frame of reference. The high degree of relationship between dimensions also points to a need for not overinterpreting differences between dimensions.

Finally, the relationship of the dimensions to perceived job satisfaction and leader performance indicated that the leadership dimensions are indicators of potential problems even when the unit or individuals may appear to be satisfactorily performing their duties.

The Military Leadership Behavior Survey, properly employed, may now be used as an operational measure. It has potential for upgrading and improving the quality of leadership in today's Army.

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APPENDIX

Investigation of perceptions of Army leadership:  
Développement of a measuring technique

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APPENDIX

Investigation of perceptions of Army leadership:  
Development of a measuring technique

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Final  
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**HumRRO**

## Investigation of Perceptions of Army Leadership: Development of a Measuring Technique

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February 1974

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## FOREWORD

This report describes activities performed by the Human Resources Research Organization during LEADDIM, a project conducted for the Army Research Institute for the Behavioral and Social Sciences. The principal objective was to structure and pretest a questionnaire instrument appropriate for field administration to assess leader behavior in the Army. The base for the questionnaire instrument was the instrument used by the CONARC Board in the conduct of its 1971 survey of leadership in the Army.

On the basis of factor analyses of the 1971 data and taking into account concerns in the field of leadership today, the original questionnaire was expanded to take into account some of these concerns. The questionnaire was pretested on over 1800 Army personnel. After review of the results, an instrument measuring four dimensions of leadership was devised and recommended for field administration. A handbook for administration is provided.

The work for this project was performed by HumRRO Division No. 7 in Alexandria, Va. The director of the division is Dr. Robert G. Smith.

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Dr. Joel M. Reaser was the Principal Investigator and he was assisted by Mr. Michael R. Vaughan and Dr. Richard E. Kriner. Data analyses were performed by Ms. Helen Hagen. The research assistant on the project was Ms. Deborah Bercini.

The authors also express their appreciation to Drs. T. O. Jacobs and J. G. Hunt for their contributions as advisors to the project.

The work was performed under Contract DAHC-19-74-c-0007 and was administered by the U. S. Army Research Institute for the Behavioral and Social Sciences.

R. G. Smith PhD  
Director  
HumRRO Division No. 7

## SUMMARY AND CONCLUSIONS

The research activities reported in this document represent the culmination of an effort, begun in 1971, to develop a leadership assessment questionnaire that could be easily administered, scored and interpreted in the field. Moreover, it was important that the instrument incorporate a set of conceptually useful leadership dimensions so that those who would use it as an assessment tool could maximally apply the information it would yield. The analyses performed by the Army War College and the Army Research Institute, and those conducted by HumRRO reported in Vaughan, Kriner and Reaser (1973) and this study, have each contributed to the objectives cited above.

The specific research objectives of the current study were to pre-test a revised questionnaire and perform appropriate analyses which would provide a final, refined questionnaire instrument and to write a users manual to assist those administering the questionnaire in the field. The research was also directed toward an analysis of the relationship between various dimensions of leadership and certain demographic and criterion variables included in the questionnaire.

The content of the questionnaire was revised from the CONARC Board version to include additional scales relating to leadership behavior as investigated in studies at Ohio State University, the traditionally accepted principles of leadership considered important to leadership in the Army, and several items of current theoretical interest. The

questionnaire format was closely examined and altered to facilitate the ease with which it could be completed, reflecting the highest degree of understanding of its content.

The final version of the questionnaire was then mailed to a sample of ten thousand Army military personnel with instructions to complete the questionnaire and return it in an enclosed, stamped envelope to the research project director.

Two versions of the questionnaire were pretested. One thousand of the ten thousand subjects were mailed questionnaires reflecting "personalized" items, while the remaining portion of the sample received questionnaires with items phrased in "group" terms. For example, if the items stated: "He is concerned for his unit's morale," it was re-phrased in the personalized mail-out to read: "He is concerned for my morale." While return rates for those receiving the personalized version were somewhat higher, few other differences were observed. The total return figure for the questionnaire was over 1800.

For purposes of the pretest, data was gathered from only one perspective, i.e., the questionnaire was used to elicit responses from subordinates who were asked to describe their superiors. The pretest did not gather data regarding superiors describing subordinates, leaders describing peers, or leaders describing themselves.

A factor analysis of the questionnaire response data yielded a set of leadership dimensions quite similar to dimensions identified within the original CONARC Board questionnaire. Four conceptually meaningful factors were identified and labeled as follows: Task Professionalism;

Task-oriented Consideration; People-oriented Consideration; and Personal/Interpersonal Professionalism. These dimensions were utilized to generate a conceptual model which differentiates between task and socio-emotional types of leadership on one dimension and between type of demand placed upon the leader in a second dimension. This model is explicated in the body of this report.

Forty-three items were selected to establish scales to measure the four dimensions. The factor scores were computed for each of the survey respondents and used to predict the respondents' ratings of both group and individual leader performance. Of the six criteria predicted, three of the six were most highly correlated with Task Professionalism; two were most highly correlated with Personal/Interpersonal Professionalism; and the remaining criterion was most highly correlated with Task-oriented Consideration. The importance of this step was that it enabled assessment of whether a leader's score on any of the leadership dimensions was related to ratings of group or individual performance or the respondent's satisfaction with being a member of his unit. The leader's behavior was highly related to the performance and satisfaction ratings.

Additional findings included the following data: (1) there were significant differences in the rating of leaders on the leadership dimensions according to race and pay grade. Small but untested differences were also found between officer branches of service; (2) the IMPORTANCE response scale correlated very highly with the SHOULD response scale. Therefore, the final questionnaire includes a DO-

SHOULD response format instead of the DO-SHOULD-IMPORTANCE format. This will facilitate the completion of the questionnaire without associated loss of analytic capability; and (3) the eleven principles of leadership correlated with ratings of group and individual leader performance.

#### Conclusions

This study produced a survey instrument measuring four dimensions of leader behavior. It is recommended that this instrument be used in field studies oriented toward either research or practical applications. Research studies should include gathering of objective performance criterion measures along with the leadership data. An effort should be made to correlate the leader behavior data with the criteria and to accumulate sufficient data using the questionnaire to establish norms for the individual behaviors and for the dimensions.

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## I. INTRODUCTION

Since 1971, renewed emphasis has been given to analysis of the characteristics and dimensions of leadership in the Army. One element of this research enterprise has been development and testing of a survey questionnaire intended to assess the status of leadership among Army personnel. This questionnaire was first utilized in a study conducted by the Army War College in a survey of 1800 military personnel and later formed the basic instrument for a survey of over 30,000 Army personnel by the CONARC Leadership Board. A subsequent study (Vaughan, Kriner and Reaser, 1973) was commissioned to investigate selected issues relating to the CONARC data, with specific emphasis on ascertaining the dimensions of leadership tapped by the questionnaire, further refinement of its analytic value, and identification of relationships between demographic and leadership variables in the data.

The research reported in this document is founded on each phase of investigation cited above. Its broad objective is concise definition of leadership dimensions, and associated scales, which will form the final content of the Army leadership questionnaire. Specific objectives included the following: (1) Replication of factor-analytic solutions derived in the earlier study; (2) develop a final questionnaire with specification of leadership factors and scales for scoring;

(3) re-test the value of including the multiple response scales used in the earlier questionnaire format; and, (4) the development of a User's Manual for administering the survey to increase capability for use and analysis of the questionnaire in field settings.

To distinguish this study from others carried out on other Army populations in different circumstances, it is noted that the approach of this study does not focus on leadership in training situations or simulated combat situations, but rather has directed its efforts to collecting the observations made by subordinates of leaders in whatever real world position that leader held. The random survey conducted in this effort provided information on Army leaders in administrative, technical, and field missions and thus provides a broad picture of the behavior of leaders in the Army today.

## II. BACKGROUND

### Construction of the Original Questionnaire

The CONARC (Emerson) Board questionnaire was developed by a committee of researchers having expertise in the area of organizational leadership. A battery of items was generated describing behavioral correlates of Army leadership characteristics. Items were derived from those developed in the Ohio State leadership research (including Stogdill's LBDQ Form XII), traditionally accepted principles of military leadership, and dimensions of behavior which consensus had identified as those expected to be important to performance of the Army's mission.

The response format utilized was a trichotomized procedure intended to yield a weighted discrepancy score. For each item, respondents were asked to rate the leader on how often he does the leadership behavior described in the item; how often he should do it; and how important the leadership behavior is. The DO score, subtracted from the SHOULD score, provided an indication of the discrepancy in the leader's behavior. The IMPORTANCE score was multiplied by the resulting discrepancy to obtain a weighted assessment of leadership behavior.

An immense data bank was amassed using the questionnaire described above. Survey data for over thirty thousand Army respondents were collected and analyzed. In an effort to reduce the data and to focus on key issues, an additional set of analyses were implemented. These analyses are reported in Military Leadership in the Seventies: Selected Analyses (Vaughan, Kriner, and Reaser, 1973). Factor analyses were performed on twelve subsets of data from the Emerson

Board survey. Results of the factor analyses showed a set of six factors drawn from all subsets of the sample. These dimensions were described as follows:

Professionalism

Denotes technical competence, high standards, a positive approach to attaining objectives and the ability to make fresh approaches to problems. Also indicates an awareness of others' capabilities and the quality of being considerate of their needs.

Authoritarianism

This dimension refers to behavioral traits which are inhibiting and negative. It denotes resistance to change, selfishness, exaggerated ambition, corrosive criticism, interacting impersonally and making insensitive demands. It also refers to suppression of initiative.

Consideration: Task-oriented

This dimension is characterized by concern for maintaining good communication, support for others, sharing decision-making, rewarding good performance and maintaining high performance. It stresses the context of consideration in task-attainment.

Consideration: Need-oriented

Denotes concern for morale, flexible discipline, and setting an example for subordinates. It may include counseling as a related characteristic and emphasizes the needs of others rather than goal-accomplishment.

### Social Support

This dimension refers specifically to communication, support, and morale as significant traits. Emphasizes the climate of leadership through communication and support for personnel.

### Facilitator

Characterized by definition of expectations, reinforcement of subordinates, being flexible, taking the initiative and developing subordinates. This dimension emphasizes goal-attainment through definition, reinforcement, and development.

These factors were drawn from data representing three perceptual levels: (1) ratings of superiors; (2) ratings of subordinates; and (3) self-ratings. The factors Professionalism, Authoritarianism, and Consideration: Task appeared across each of these perceptual levels. Consideration: Need and the Facilitator factor appeared only in the self-rating data (for ratings of what leaders do.) The Social Support factor emerged only for superior/subordinate ratings, and was not evident in the self-rating data.

The other findings of the Vaughan, Kriner and Reaser study included:

(a) The DO, SHOULD, IMPORTANCE response paradigm was inefficient. The respondents failed to differentiate between these ratings. This was particularly true of the latter two scales. It was recommended that the number of response scales be reduced.

(b) In order to relate the data found from the battery of items used in this questionnaire with data reported elsewhere in the literature, the items should include intact scales from previously used and documented leadership scales. It was recommended that the Consideration and Initiation of Structure scales from the Leader Behavior Description Questionnaire (LBDQ) - Form XII (Stogdill, 1963) be used.

(c) Additional emphasis should be placed on the development of criteria of individual and group performance which could be used in determining the relationship between leader behavior and performance outcomes.

### Development of the Questionnaire Used in this Study

As an initial step in the development of the revised questionnaire, a panel of experts in the field of leadership was convened to review the original set of items and to determine what additional facts of leadership should be addressed. Given the recommendations of the earlier study, and the Army's specific objectives in developing the questionnaire, the panel recommended that in addition to the LBDQ dimensions of Consideration and Initiation of Structure, items should be included to determine the extent to which a leader develops and maintains good relationships with other leaders; also, items should be included to measure the extent to which the leader actively seeks two-way communication with his subordinates.

The final questionnaire form used in a mail-out pre-test of the survey consisted of 77 items. These included the original 43 items from the Emerson Board questionnaire, 20 items comprising the Consideration and Structure scales from the LBDQ Form XII, and 11 items drawn from the eleven principles of leadership. Three items were included to measure the degree to which the leader establishes and maintains good relationships with his superiors and his peers in the organization and to measure the leader's behavior with respect to actively seeking information from his subordinates.

The questionnaire also included six rating scales used as criteria of group and individual performance and of personal satisfaction. Three of the scales were ratings of the leader's individual



performance; two were ratings of the group's performance, and one was a scale measuring individual satisfaction. (See Part III of the questionnaire at Appendix A .) The inclusion of these criteria in the survey was considered an important element of the study. Without such criteria, judgements about the relative importance of various leadership behavior can only be made in a theoretical vacuum; that is, the importance of leadership behavior is ultimately determined by its impact on the performance of the group being lead. Performance of the group was measured by ratings of the unit's reputation and recognition for getting the job done. The leader's individual performance was measured by his reputation for getting the job done, the recognition he has received for getting the job done, and his overall performance. The final criterion rating was a rating of the individual's satisfaction with being a member of his leader's unit.

The test questionnaire focused on description of superiors only. Since only one instrument was to be developed, this one perspective was incorporated for defining the scales to be used in the instrument. Applicability for other perspectives, e.g., self, subordinates, is assumed.\*

The DO-SHOULD-IMPORTANCE response paradigm was retained from the earlier study in order to test for replication of the high correlations found at that time. It was hypothesized that correlations would replicate, thus permitting elimination of the triple-response format for each item.

As a supplemental effort, 10% of the questionnaires used in the

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\* As will be indicated below a "personalized" version of the items was tested. This version is recommended when use is restricted to superior ratings. Ratings from other perspectives should make use of "group" or "collective" terminology in the items.

survey were "personalized"\* so that the response set of the rater focused on personal experience with the leader being rated rather than interpretations or judgements of a leader's behavior in respect to others. This was done for two reasons: (1) It appeared an economic method for use in attempting to control response-set by respondents; (2) the approach was perceived as potentially more appropriate for evaluation of how the individual soldier perceives his leader in respect to fulfillment of his informal contract (Leadership for the 1970's, 1971) with the leader and the Army.

The questionnaire is divided into three sections. Section I consisted of the leadership items discussed above. Section II included items to capture basic demographic data: Sex, pay grade, service specialty, education, and type and location of unit. Section III of the questionnaire included the six criterion items discussed above.

\* The items used in the questionnaire were translated from a collective phraseology to a personalized phraseology. For example, the item "He keeps his men informed" was rephrased to read "He keeps me informed".

### III. METHODOLOGY

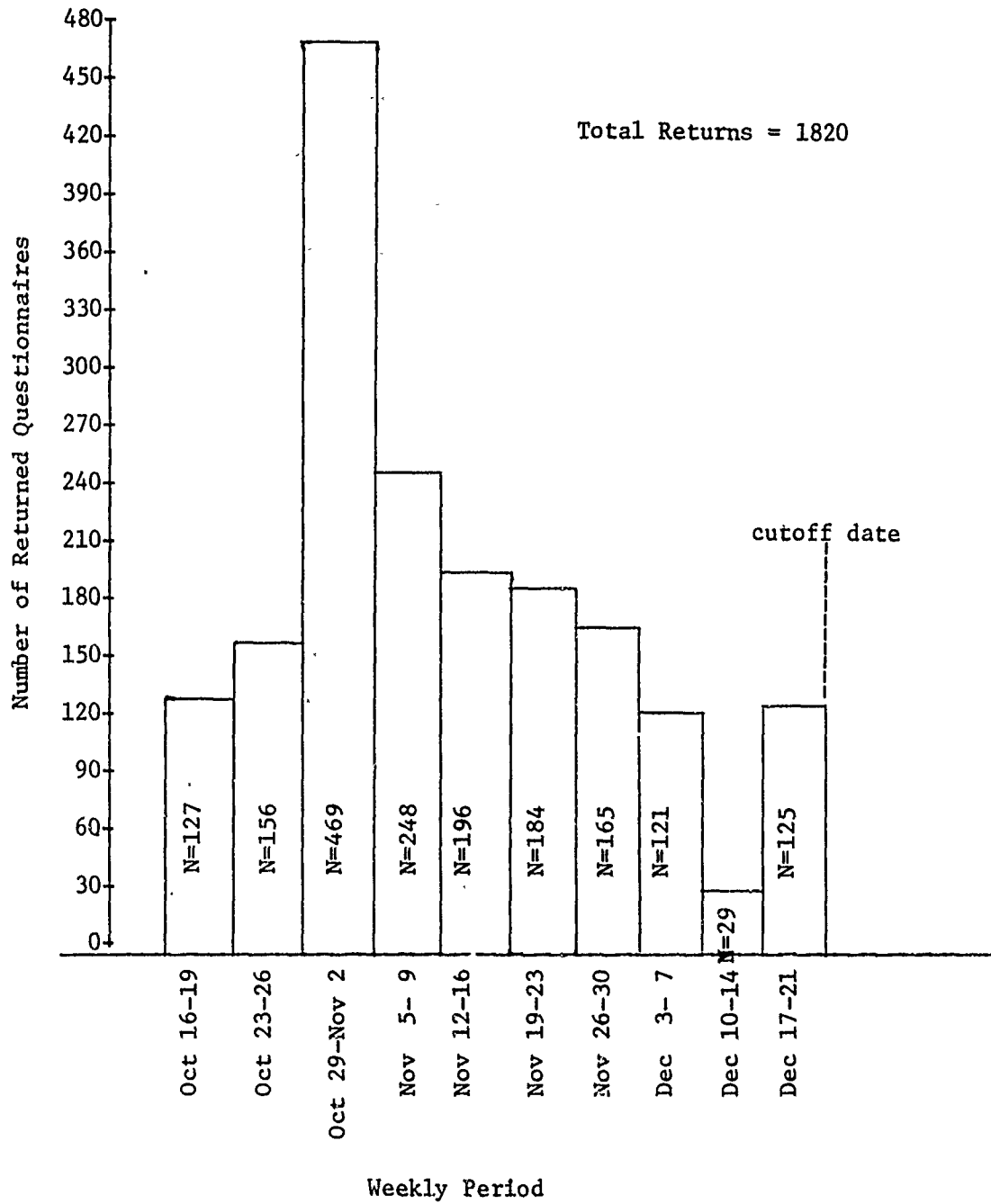
#### Sample Selection Procedure

One procedural step of the present study was to properly sample and weight the responses of personnel to the survey of leadership behaviors. To accomplish this, the sample of respondents had to include the range of grade levels of interest in the assessment of superiors' leadership behaviors. This was done in the present study by selecting a sample of 2000 personnel in each of five grade categories: E1-4, E5-6, E7-8, O1-3, and O4-6. The sample, which totalled 10,000 Army personnel, was drawn from the world-wide active Army population. The sampling of personnel was done from the Army's locator file of August, 1973.

Due to the varied geographical location of personnel in the sample, the survey was mailed to each addressee. The "personalized" version of the survey (see Appendix B) was sent to every tenth (10th) name of the sample. The remainder of the sample received, through the mail, a copy of the survey in its collective terminology (see Appendix A). The result of this procedure was a sample of 1000 "personalized" surveys of 9000 collective terminology surveys sent by mail to the addressees.

The surveys were sent out as third-class mail. Each addressee was provided an addressed, postage-paid return envelope. The return postage was first-class mail. The mailing of surveys began on the first week in October, 1973. The weekly return-rate is shown in Figure 1.

FIGURE 1  
WEEKLY RETURN RATE



The overall return rate was 18.2% or a total of 1820 returns. Of these 1820 returns, 1751 were usable for purposes of data analysis.

#### Demographic Characteristics of the Respondents

The demographic characteristics cited here are based upon data from Part II of the returned surveys. The proportions of survey returns by respondents's sex, grade category, and race are shown in Tables 1 through 3. Table 2 provides both the percent of the total returns submitted by each grade category and the percent returned within each grade category of the number of questionnaires originally mailed out.\* The senior grades of both officers and enlisted men had higher return rates than did the junior pay grades.

The proportions of survey returns by respondent's age, category, education completed, and years-in-service category are shown in Tables 4 through 6.

#### Data Preparation

As the completed questionnaires were received, each was visually scanned to check for obvious misinterpretation of the instructions,

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\* The percent returned within each demographic category (Tables 1 and 3 through 6) are not provided since the demographic data were not included on the data tape of personnel selected for this study. Hence it is not known whether specific subgroups had higher or lower rates of return than other demographic subgroups.

TABLE 1

Proportion of Survey Returns by Sex of Respondent

Sex	Proportion of Returns	
	N (unweighted)	% of Returns
Men	1697	96.9
Women	50	2.9
Unidentified	4	.2
Total	1751	100.0

TABLE 2

Proportion of Survey Returns  
by Grade Category of Respondent

Grade Category	N (unweighted)	% of Returns	% of Mailouts for given grade category
<u>Enlisted</u>	89*	5.1	-
E2-4	153	8.7	7.6
E5-6	208	11.9	10.4
E7-9	323	18.4	16.2
<u>Warrant Officer</u>	4	.2	**
<u>Officer</u>	338*	19.3	-
01-3	190	10.8	9.5
04-6	445	25.4	22.2
07	1	-	**
TOTAL	1751	99.8	

\* grade not fully indicated - subjects responded only as "enlisted" or "officer".

\*\* those grades not originally sampled.

TABLE 3

Proportion of Survey Returns by Race of Respondent

Race of Respondent	N (unweighted)      % of Returns	
American Indian	12	.7
Caucasian	1506	86.0
Negro	138	7.9
Spanish American	40	2.3
Other	44	2.5
Unidentified	11	.6
Total	1751	100.0



TABLE 4

Proportion of Survey Returns  
by Age Category of Respondent

Age Category		
	N (unweighted)	% of Returns
Under 21 (18-20)	71	4.1
21-24	231	13.2
25-29	286	16.3
30-34	319	18.2
35-39	400	22.8
40-44	267	15.2
45-49	111	6.3
50 and older	62	3.5
Unidentified	4	0.2
Total	1751	99.8

TABLE 5

Proportion of Survey Returns by  
Education Completed Level of Respondent

Education Completed	N (unweighted)	% of Returns
Eight years or less	8	0.5
Completed some high school	36	2.1
Graduated from high school	378	21.6
Completed some college	397	22.7
Graduated from college	534	30.5
Master's degree or higher	392	22.4
No response	6	.3
Total	1751	100.1

TABLE 6

Proportion of Survey Returns by  
Years in Service Category of Respondent

Years in Service Category	N (unweighted)	% of Returns
3 years or less	377	21.5
4- 9 years	296	16.9
10-19 years	748	42.7
20 years or over	330	18.8
Total	1751	99.9

completeness of the responses, and for obviously indiscriminate responses. The data were then keypunched and verified in preparation for computer analyses. The verified data were then edited by computer program for duplicate responses for any item, for out of range responses and for missing data. Questionnaires with duplicate responses were discarded from the edited data bank. Out of range responses and missing data were coded zero. Zero responses were eliminated from the actual analyses via selection statements available in the statistical routines used in the analysis. Item means for the DO, SHOULD, and IMPORTANCE responses are provided in Appendix C.

Each record in the edited data set was weighted according to the pay grade of the individual respondent. (See Table 7 for weights used.)

The weight,  $\underline{W}$ , for each grade,  $\underline{g}$ , was computed as the Army active strength for a grade,  $\underline{S}$ , divided by the number of respondents in that grade,  $\underline{R}$ . This is formulated as:

$$W_g = \frac{S_g}{R_g}$$

All analyses were carried with the use of the programs and procedures described in Statistical Package for the Social Sciences (1970).

TABLE 7

Values used to weight each pay grade  
used in the sample

<u>Grade</u>	<u>Weight</u>
01	416.00
02	250.15
03	204.86
04	69.62
05	55.41
06	42.70
07	160.00
0-unknown	113.68
E2	14339.60
E3	1972.30
E4	1545.99
E5	998.65
E6	758.18
E7	218.44
E8	187.56
E9	146.54
E-unknown	1010.72
W1	610.00
W-unknown	5006.00

#### IV. RESULTS

##### Factor Analyses

Factor analyses were generated for two sets of data: (1) Responses to 43 of the 77 items which were the 43 items used in the CONARC (Emerson) Board Survey; and, (2) responses to the entire set of 77 items included in the current questionnaire. The 43-item factor analysis was conducted to determine whether a similarity of results would obtain in comparisons of CONARC Board data with those of the current study. An assessment was made of the extent to which current data reflected a general replication of the factor structure defined in the previous study. The initial three dimensions found in the current study were essentially replications of the first three dimensions found in the earlier study. The subsequent dimensions (Consideration: Need, Social Support, and Facilitator) did not replicate. The fact that these dimensions did not replicate in this study was assessed to be a result of the reduction in the perceptual response alternatives in the current investigation from three (superior, subordinate, self) to one, i. e., subordinate descriptions of the superior. This conclusion is supported by data from the earlier study which showed that Consideration: Need and Facilitator factors emerged only for the self-rating data in ratings of what leaders do. Since the current study included no self-ratings these factors did not emerge. While the Social Support factor did emerge for superior/subordinate ratings in the earlier study, there are indications that it was subsumed by other factors in the current investigation. The resulting conclusion is that a three-factor solution was

computed and the original three factors did obtain, indicating they were robust over several solutions and subject samples.

Analysis of the 77 items comprising the current instrument was accomplished in two phases: (1) A nine-factor solution was stipulated in the first run and given preliminary examination. Eigenvalues of the factors, percents of variance accounted for and interpretability of the factors were taken into account in the decision to compute a four factor solution. The four factor solution was accepted as the solution for the additional analyses and interpretation. (2) The second phase of analysis included selection of specific items that were most highly associated with individual factors in the structure. Although as would be expected, there were some differences in item factor loadings, the three factors found in the 43-item three factor solution appeared again. The fourth factor was made up of one of the new items included in the 77-item version of the questionnaire as well as some of the original 43-item set. The first three factors were robust over the two solutions resulting from the two sets of items.

A selection process was used in order to appropriately economize the final questionnaire, by including those items which most strongly characterized the factors involved and, consequently, would effectively distill the conceptual quality of the four leadership dimensions. The rules for the item selection procedure were as follows: (1) only those items were included which loaded at  $\pm .50$  or above,\* (2) items loading

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\* Only items loading  $\pm .60$  were used on Factor I since the .50 criterion retained too large a number of items.

on more than one factor ( $\pm .50$ ) were deleted; and, (3) in cases where items, within factors, had similar content the item with the highest loading was retained and the other(s) deleted.

Table 8 provide listings of the items selected for each factor scale and the loadings of those items on the factor to which they were assigned.

(Appendix F provides the details of the 43 and 77 factor analyses; the resulting factor structure, the item loadings associated with each factor, the eigen value of each factor, and percentage of accounted for variance for each factor.)

The final questionnaire made up of the selected items is provided at Appendix D. (A cross reference listing of items on the pretested and revised questionnaire is provided at Appendix E.)

TABLE 8

Final Factor Structure\*  
and  
Item Clusters

Factor I	Factor II	Factor III	Factor IV
Item Loading #	Item Loading #	Item Loading #	Item Loading #
8 (.60)	17 (.56)	3 (-.63)	10 (-.53)
20 (.64)	28 (.72)	5 (.60)	14 (.72)
21 (.63)	30 (.50)	18 (.50)	15 (-.52)
26 (.60)	31 (.58)	19 (-.68)	16 (.63)
49 (.60)	38 (.58)	22 (-.66)	29 (.61)
53 (.66)	42 (.70)	32 (-.52)	33 (.69)
54 (.65)	43 (.76)	40 (.60)	34 (.59)
56 (.67)	45 (.72)	58 (-.53)	37 (-.61)
60 (.63)	48 (.57)	73 (-.69)	46 (.58)
65 (.64)	50 (.55)	75 (.51)	57 (.58)
72 (.66)			
77 (.64)			
Scale Reliability** $\alpha = .868$	$\alpha = .837$	$\alpha = .822$	$\alpha = .787$

\* Complete factor structure is found in Appendix F.

\*\* Coefficient alpha (Cronbach, 1954)



The four factors, or leadership dimensions, presented in Table 8 were examined in relation to the qualitative meanings of their item-clusters. This examination resulted in a set of conceptual definitions, as follows:

Factor I: Task Professionalism. This dimension is characterized by provision of structure in terms of scheduling, task-allocation, task-achievement, communication about task requirements, competency, and a positive approach.

Factor II: Task-Oriented Consideration. This factor pertains to structure in respect to setting an example, reduction of ambiguity in the work-situation, communication in the sense of approachability, supporting subordinates, and providing positive rewards.

Factor III. Person-Oriented Consideration. This dimension is a positively-expressed and somewhat enlarged approximation of the Authoritarian dimension found in the earlier study (Vaughan, et al., 1973). It pertains to exhibiting consideration for members of the group, being concerned for group welfare and morale, and open-handed relations with group members.

Factor IV: Personal/Interpersonal Professionalism. This dimension is characterized by the leader's behavior in respect to maintenance of functional professional relationships--vertically and horizontally in the organization--and flexibility in active fulfillment of responsibilities as a leader.

The results of this analysis support the findings reported in the earlier analysis of the Emerson Board data. The first three dimensions generated in Vaughan, et al (1973) are similar to the first three derived in the current study. The Vaughan, et al dimensions were: Professionalism, Authoritarianism, and Consideration: Task-oriented. There are two differences in the four factor solution of the current data vis a vis the earlier study: (1) Two dimensions defined two aspects of professionalism--one pertaining to professionalism in respect to fulfillment of personal/interpersonal role requirements and the other dealing with professionalism with reference to the job requirements placed on the leader; (2) the Authoritarianism dimension was expanded to include items pertaining to positive, as well as negative, aspects of behavior including behaviors relating to open and communicative concern for group welfare.

A conceptual paradigm built on the factors above is presented in the Conclusions.

### Computation of Factor-scores and Factor Intercorrelations

The procedure selected for computing factor scores was a shorthand method, following the formula set forth below:

$$FS_f = \frac{\sum_{i=1}^{N_f} I_{f_i}}{N_f}$$

Where:  $FS_f$  = Factor score for Factor  $f$

$N_f$  = Number of items on Factor  $f$

$I_{f_i}$  = Rating on  $i^{th}$  item of Factor  $f$

This method of factor score computation is one of a number of such shorthand procedures, none of which is as accurate or as reliable as a complete estimation method. In shorter methods, the influence of variables not included in the scale construction is not controlled. Also, although an item may have loading on more than one dimension, items are selected for one and only one scale. This may result in scales which are somewhat correlated, in spite of the fact that the scales originated from orthogonal dimensions. The complete estimation method utilizes some variables as suppressor variables to develop the best estimate of the factor. (See Harmon, 1967, Chapter 16).

A shorthand method for computation was selected because of the necessity to provide an instrument appropriate for field administration and scoring. Insofar as the complete estimation method requires the availability of a comparatively large computer facility, it was necessary to adopt a procedure that would have practical application for comparatively easier field use.

The factor scores generated by the technique described above were utilized to perform computation of factor intercorrelations in order to assess the degree of relationship between factors derived in this study. The intercorrelation matrix for these factors, as well as the scale scores for the LBDQ dimensions of Consideration and Structure, is presented in Table 9.

The correlations in the table indicate consistent and high correlations between each of the factors. Normally such high intercorrelations would indicate a possibility of a problem in the solution or the definition of the factors. However, correlations of this magnitude are not uncommon between scale scores derived from orthogonally defined leadership dimensions. For example, Hunt, Hill and Reaser (1971) found Consideration and Structure correlated at  $r=.61$ . As a check on this, the correlation between Consideration and Structure was computed using data collected for this study. The correlation was  $r=.65$ .

Although it would be desirable for the factor scores to be uncorrelated, the magnitude of the correlations between the four factor scores is not unexpected.

The reason for the high interfactor score correlations probably has to do with the way in which the factor scores were computed. As indicated above the shorthand method used here has a number of limitations one of which is that the effects of items which load on more than one factor are not accounted for. Thus, even though the solution to the factor analysis is orthogonal, the way in which the factor scores are computed reintroduces some nonorthogonality. Further, it is suspected that this nonorthogonality problem is accentuated when a strong halo effect is operating throughout the data resulting in generally high correlations between many of the items in the pretest questionnaire.

It is assumed that the high intercorrelations found between the factors is not indicative of poorly defined factors but is the result of the procedure for factor score computation possibly compounded by a halo effect.

TABLE 9

Factor Intercorrelation Matrix  
(Including LBDQ-C and LBDQ-S Items)

	II	III	IV	LBDQ-C	LBDQ-S
I	.83	.79	.64	.79	.83
II		.74	.67	.81	.84
III			.63	.87	.54
IV				.74	.70
LBDQ-C					.65

### Multiple Regression Analysis - Predicting Performance

One of the questions for analysis which has been thus far missing from studies resulting from the Emerson Board survey is an analysis of the relative importance of various leader behaviors in relationship to some direct measure of performance per se. Up to this point the question of importance of leader behaviors was answered in terms of the perceived importance as rated by the respondent. The more important organizational question is how does leader behavior affect the productivity or performance of the leader and his group.

The questionnaire used in this study included two ratings of group performance and three ratings of the leaders' individual performance. Also included was a scale on the satisfaction of the respondent with being a member of the rated leader's group. To get an indication of the answer to the question of how important the leader's behavior was to individual and organizational performance, the performance and satisfaction ratings were used as criteria in a stepwise multiple regression procedure. The independent variables were the scale scores on the factors described above.

The results of the regression analyses are presented in Table 10.

TABLE 10

Results of Stepwise Regression of Factor  
Scores Prediction of Performance Ratings

	Criterion								
	Rating of "Reputation for getting the job done"			Rating of "Receive Recognition for a job well done"			Overall Performance		
	<u>Factor</u>	<u>R</u>	<u>R<sup>2</sup></u>	<u>Factor</u>	<u>R</u>	<u>R<sup>2</sup></u>	<u>Factor</u>	<u>R</u>	<u>R<sup>2</sup></u>
Leader	II	.632	.400	I	.325	.106	I	.695	.484
	IV	.652	.426	II	.374	.140	IV	.756	.572
	III	.660	.436	IV	.383	.147	III	.772	.597
	I	.661	.437	III	.386	.149	II	.774	.600
Leader's Unit	IV	.365	.134	I	.475	.226			
	III	.383	.147	IV	.489	.239			
	II	.406	.165	III	.503	.253			
	I	.406	.165	II	.503	.253			

Factors and associated multiple correlation values are presented in the order of entry into the regression equation in the stepwise procedure. (Simple correlations between criteria and factors are provided in Appendix G.)

Three of the criteria--recognition received by the unit and the leader and the leader's individual overall performance--are most highly correlated with Factor I--Task Professionalism. The leader's reputation for getting the job done is most highly correlated with Factor IV--Personal/Interpersonal Professionalism. Factor IV is also the factor most highly correlated with satisfaction with being a member of the leader's unit (Table 11).

#### The Criterion Ratings

The matrix of intercorrelations between the criteria is presented in Table 12. The ratings were of the leader's overall performance, recognition he receives, and his reputation. Ratings were also made of the unit's recognition and reputation. The final rating was of the respondent's satisfaction with being a member of the leader's unit. Given that recognition, reputation, as well as overall performance, ratings are indicators of performance, it is apparent that they do not measure the aspects of performance. Correlations range from .184 to .530 among those five variables.

One of the objectives in setting up the criterion ratings was to have the respondent differentiate between the performance of the leader and the performance of the leader's unit. The reputations of the unit and the leader were correlated at .517. (See Table 12); the accounted for variance is about 25% one variable of another. Unit and leader recognition are correlated at about the same level--.526. Although the correlations between ratings of the unit and the ratings



TABLE 11

Results of stepwise regression of factor score prediction of rating of satisfaction with being a member of the leader's unit

Step	Factor	R	R <sup>2</sup>
1	IV	.662	.438
2	III	.725	.526
3	I	.729	.532
4	II	.729	.532

TABLE 12 -Criteria Rating Intercorrelations

CRITERION	1	2	3	4	5	6
1. Unit reputation for getting job done	1.0					
2. Leader reputation for getting job done	.517	1.0				
3. Unit recognition for a job well done	.216	.219	1.0			
4. Leader recognition for a job well done	.184	.301	.526	1.0		
5. Leader overall performance	.323	.530	.366	.238	1.0	
6. Satisfaction with being a member of leader's unit	.358	.451	.371	.219	.690	1.0

All correlations are significant at  $p \leq .05$

of the leader are statistically significant ( $p \leq .001$ ), ratings of one fail to account for three quarters of the variance in ratings of the other. The subjects do seem to be able to make a distinction between the performance of the leader and the performance of the unit.

The individual's satisfaction with being a member of the unit and his rating of the overall performance of the leader is correlated,  $r = .690$ . Although normally there is little justification for assuming causality from a correlation, in this case it is assumed that there is a causal relationship and that it is the leader's performance which effects the satisfaction of the subordinate. This is the assumption usually made in leadership research.

The criteria used in this study were all ratings made by the same individuals reporting their observations regarding the behavior of the leader. It is acknowledged that independent and objective measures of performance of the leader and the leader's unit need to be related to the factors of leadership identified in this study.

## Analysis of Factor Scores by Demographic Categories

The equivalent of a main effects test of the one-way analysis of variance was performed using categorical vectors (demographic categories) in a prediction equation (Kelly, Beggs and McNeil, 1969). This was done for the demographic categories of race, grade, and branch of service for personnel receiving the "standard" terminology survey.

Table 13 presents the results of the main effects test among race categories. As the data in the table indicate, a significant main effect was found among race categories in their mean factor scores on each of the four factors. The differences among means were greater for Factors I and III than those for Factors II and IV. American Indians, as a race category, had the lowest mean factor score on Factors I and III while having the highest mean factor score on Factor II; Negro race category had the highest mean score on Factors I, III, and IV.

The mean factor scores for categories of service branch (officers only) are shown in Table 14.

The mean factor scores and main effects tests by grade category are shown in Table 15.

Significant main effects were found on each of the four factors for the different grade categories. On all factors, the E7-9 grade category had the highest mean factor score. For all but Factor IV, the E1-4 grade category had the lowest mean factor score. These results are consistent with findings from the previous study (Vaughan, et al, 1973).

TABLE 13

Factor Score Means By Race  
Category ("Collective" Form Only)

Race Category	Mean Factor Score			
	Factor I	Factor II	Factor III	Factor IV
American Indian	2.53	5.61	-2.43	2.29
White (Caucasian)	4.97	4.48	-.18	2.64
Black (Negro)	5.35	5.28	.08	3.06
Spanish-American	5.22	5.02	-.04	2.57
Other	4.39	4.54	-.84	2.22
F <sup>1</sup>	12863.83	2226.57	11219.84	1179.27
F <sup>2</sup>	43.99*	7.61*	38.37*	6.08*

\*  $p \leq .01$  (df 4/1563)

- 1 F-ratio based upon weighted observations regression analysis
- 2 F-ratio based upon weighted analysis F-ratio divided by the ratio of weighted/unweighted observations to approximate unweighted F.

Table 14

Factor Score Means By  
Branch of Service Category  
("Collective" Form Only)

Branch of Service Category	Mean Factor Score			
	Factor I	Factor II	Factor III	Factor IV
FA/ADA	5.52	5.47	.47	3.01
INF/ARMOR	5.37	5.35	.41	2.93
QMC/AGC/FC	5.52	5.42	.49	2.97
SigC/MI/MPC	5.29	5.29	.29	2.86
CE	5.36	5.40	.52	2.94
OrdC/TC/CMLC	5.17	5.29	.76	2.94

TABLE 15

Factor Score Means by Grade Category  
 ("Collective" Form Only)

Grade Category	Mean Factor Score			
	Factor I	Factor II	Factor III	Factor IV
Enlisted 1-4	4.46	4.51	-.75	2.54
Enlisted 5-6	5.08	4.96	-.10	2.51
Enlisted 7-9	5.63	5.54	.64	3.12
Officer 1-3	5.27	5.23	.35	2.83
Officer 4-6	5.38	5.36	.51	2.97
F <sup>1</sup>	10574.22	9197.58	15565.64	3187.13
F <sup>2</sup>	36.16*	31.46*	53.23*	10.90*

\*  $p \leq .01$  (df=4/1563)

- 1 F-ratio based upon weighted observations regression analysis
- 2 F-ratio based upon weighted analysis F-ratio divided by ratio of weighted/unweighted observations to approximate unweighted F-ratio

### The Collective and Personalized Questionnaires

There is no empirical basis for deciding which form of the questionnaire, collective or personalized phraseology, is better. The return rate for the personalized version was about the same as for the collective version (18.3% versus 17.4% respectively). Hence the decision of which phraseology to use must essentially be an intuitive one. The personalized version is preferred because it orients the subject to respond on the basis of his personal observations of, and experience with, the leader. Presumably this allows the respondent to be more accurate in his reporting of the leader's behavior and less apt to be affected by response problems such as halo effect. However, the personalized version is only appropriate when subordinates are reporting on superiors. For self descriptions or for superiors describing subordinates, the collective version should be used.

### The DO/SHOULD/IMPORTANCE Response-Format

Earlier research with the CONARC Board questionnaire (Vaughan, et al, 1973) showed that the intercorrelations between the three-part responses for each item were sufficiently high to consider the possibility of deleting either the SHOULD response or the IMPORTANCE response, or both. Obviously, one would have no desire to eliminate a device simply for the sake of doing so; however, there is some reason for concern regarding the potential ambiguity or redundancy when a respondent is confronted with a three-part response. This is particularly true of the IMPORTANCE response. In view of this dilemma, it was considered appropriate to examine

the correlations between these response forms and determine whether any could be deleted without reducing the analytic power of the instrument. Table 16, gives the intercorrelations between these response forms for each leadership factor. The correlations indicate that there is a quite strong relationship between the SHOULD and IMPORTANCE responses. Correlations between other response forms are also high in some instances, but not sufficiently high to remove both SHOULD and IMPORTANCE response forms. Based on these observations, it is recommended that the final questionnaire form not include the IMPORTANCE response form. The final version should be designed to include only a DO and a SHOULD response format. This is akin to the approach used by Beere in his Actual-Ideal design (Beere, 1966).

#### Principles of Leadership and the Performance Criteria

The Army's eleven principles of leadership were included among the 77 items on the survey questionnaires which were mailed out to the current research sample. The correlations of each of the eleven principles with each of the performance criteria measured in Part III of the questionnaire are shown in Table 17. All eleven principles of leadership correlated highly with the survey measure of the overall performance of the superior being described (Criterion 5). The correlation with overall satisfaction of the respondent with his unit (Criterion 6) was likewise

TABLE 16

## Intercorrelations\* of DO/SHOULD/IMPORTANCE

Correlation Between:	Factors			
	I	II	III	IV
DO/SHOULD	.59	.49	.94	.98
DO/IMPORTANCE	.47	.47	.88	.88
SHOULD/IMPORTANCE	.90	.81	.89	.91

\* Correlations computed from item means provided in Appendix C.  
Correlations are Spearman Rho coefficients.



consistently high for each of the eleven principles of leadership. The correlation with Criterion 1 (reputation of unit for "job well done") was noticeably low for each of the eleven principles with the highest correlations reading only .22.

TABLE 17

Correlation of 11 Principles of Leadership  
with Performance Criteria

Principles of Leadership / Survey Item #	Performance Criteria					
	1	2	3	4	5 Overall Performance	6 Satis- faction
P-1 / 53	.19	.46	.49	.30	.68	.53
P-2 / 59	.16	.49	.39	.40	.57	.51
P-3 / 55	.15	.42	.52	.26	.69	.68
P-4 / 30	.11	.54	.43	.31	.50	.55
P-5 / 38	.22	.58	.44	.23	.66	.60
P-6 / 77	.15	.46	.47	.32	.62	.57
P-7 / 63	.18	.50	.44	.36	.62	.60
P-8 / 68	.18	.51	.42	.20	.65	.57
P-9 / 9	.18	.46	.47	.13	.64	.56
P-10/ 60	.09	.40	.51	.33	.63	.56
P-11/ 14	.10	.40	.33	.16	.62	.62

## V. CONCLUSIONS

### The Military Leadership Behavior Survey (MLBS)

As a result of this study a questionnaire, the U.S. Army Military Leadership Survey (MLBS) has been designed for surveys of leadership (see Appendix D). The MLBS measures four dimensions of leadership. The questionnaire is relatively brief, easily administered and can be hand scored by the respondent. The questionnaire is designed to record the observations made by the rater of the leader's behavior and enables these data to be compared with the expectations or opinions of the rater-regarding how the leader should behave. The User's Manual for the U.S. Army Military Leadership Survey (MLBS) is provided at Appendix H.

The effort in this study has focused on the DO response data. Although the SHOULD response ratings have been included in the final questionnaire, no interpretation of it is made at this point about the use of the SHOULD responses or discrepancy scores which can be computed between DO and SHOULD.

Although the questionnaire focuses on ratings from the eyes of the subordinate of a leader who is a superior, ratings from other perspectives are appropriate as long as the user reverts to "collective" phraseology in the questionnaire items. The data from the questionnaire can be used for general assessment of leadership in a given unit, or as input to leadership development and training efforts.

### A Conceptual Framework

The four dimensions of leadership identified in this study were I -Task Professionalism, II -Task Oriented Consideration, III -People Oriented Consideration, and IV -Personal/Interpersonal Professionalism. A two-dimensional paradigm is tentatively submitted as a useful means to interpret the dimensions. The paradigm is graphically presented in Figure 2. The two rows represent a dimension on which there are two roles which can be used as a basis for interacting with others. This role utilization dimension is made up of a professional, or organizational role and a personal role. The distinction between the two might best be seen as the difference between "official" versus "person to person" kinds of interactions.\* The columns of the figure represent two essential aspects of the work situation -- the requirements of the job to be performed and the people with whom the leader must deal.

Depending upon whether he is dealing with job concerns or people concerns, the leader who bases his behavior on his professional or organizational status will be exercising behaviors which have respectively been designated as task professionalism or personal/interpersonal professionalism. The first of these has to do with the set of behaviors based on a professional relationship and are addressed toward job

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\* The distinction is similar to Etzioni's (1965) distinction between formal and informal leaders as determined by the organizational position power of the leader. He also defines a personal power dimension. The distinction here is that the leader with position power can, should, and often does depend on his personal rather than his positional relationship with subordinates.

	Job Needs	People Needs
Professional Role	Factor I: Task Professionalism (TP)	Factor IV: Personal/ Interpersonal Professionalism (P/IP)
Personal Role	Factor II: Task Oriented Consideration (TOC)	Factor III: People Oriented Consideration (FOC)

Figure 2. A two dimensional paradigm on the dimensions of leadership.

accomplishment. There are elements of providing direction concerning what is to be done, how it is to be done, communication with the group concerning job requirements and performing competently and up to capabilities.

Task Professionalism differs from Personal/Interpersonal Professionalism in that the latter dimension is defined by behaviors based on the professional role but directed toward relationships with others. The behaviors in this dimension include having good working relationships with peers and superiors, being willing to cooperate, and being responsible for his share of the workload.

Factors II and III are sets of behaviors based on a personal rather than a professional relationship; i.e., the interaction is not based on official status. Although the behavior may have something to do with the job, the leader's behavior is not based on the hierarchical superior-subordinate relationship but rather on a lateral, individual to individual, basis. Task Oriented Consideration is made up of those behaviors related to job performance and, although the superior-subordinate relationship is acknowledged, the interactions are based primarily on the personal role concerns. The behaviors include reward, support, elimination of ambiguity in the work environment, and being open to acceptance of ideas and suggestions concerning the job.

People Oriented Consideration is made up of behaviors which have to do with what is best described as a "nice guy" image. This particular dimension is made up of a number of negatively phrased items as well as ones with a positive thrust. The behaviors include making it pleasant

to be a member of the unit, being thoughtful and considerate, being concerned about morale , and not being selfish, unnecessarily demanding, dishonest, overly critical or impersonal.

The professional versus personal/interpersonal role distinction has aspects which make it similar to those used in other leadership research, training, and development. Blake, Mouton and Bryson (1968) make use of the two dimensional Military Management Grid with dimensions of Concern for Mission Performance and Concern for People. The paradigm used here refines that notion by distinguishing between the concerns which arise and the role relationships which might be used to satisfy those concerns.

The distinction between professional and personal/interpersonal roles also appears similar to the classical notions of task and socio-emotional leadership studied in the small group situations by Bales and Slater (1955). In general terms they hypothesize that within a group two leaders emerge--one to ensure group accomplishment of the task, one to ensure the happiness of the group members. It is suggested that in such a situation the task leader is essentially performing what have been identified as Task Professionalism behaviors and the socio-emotional leader is performing People-Oriented Consideration. In the formal organizational situation it is ultimately the responsibility of the leader to perform both functions. He must be able to use both his formal role and the person-to-person role to successfully address the people and job problems which arise in the work situation; thus, the four dimensional leader behavior pattern emerges.

Some mention should also be made of the relationship between the dimensions found here and the traditionally studied dimensions of consideration and structure (Fleishman, 1971). As seen in the prior section, the pattern of intercorrelations between the four factors found here and the LBDQ Form XII (Stogdill, 1963) dimensions of Consideration and Initiation of Structure was what would be intuitively expected. It should be noted, however, that specific items from both LBDQ dimensions loaded on all the four scales made up for the LBAS. Given the two-dimensional paradigm being advanced here, it is expected that such would be the case; that is, various components of the LBDQ Structure dimension - emphasis on production, elimination of ambiguity, setting standards - appropriately appear in each of the factors of the LBAS given the role being used and the job or people needs being considered.\*

One of the reasons that it is important to make the distinction between the roles is not theoretical but empirical. In the Army today the leader who is successful is not the one who can "never take off the green suit" nor is it the one who is only a "nice guy"; he is the one who can appropriately use professional and personal relationships in responding to the requirements of job performance and the concern for the people in the work situation.

A notion which has been discussed in relation to the development of an all volunteer force is the importance of the satisfaction of the informal contract between the individual and the Army as an employing organization. The leader performs a crucial role seeing to it that the

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\* The reader may also be interested in comparing the four factors found here with those investigated by Bowers and Seashore (1966), and by Halpin and Winer (1957).



contract is fulfilled on the part of both parties. On the one hand he must ensure that the Army receives the expected work from the individual and in doing so acts in his official role. On the other hand he must ensure that the individual is sufficiently satisfied with the Army to perform his job. The four factors identified in this study are pertinent to the satisfaction of the contract.

#### Limitations of the Current Study and Implications for Future Efforts

One problem which permeated the results of the study was the halo-effect problem. The problem made itself felt in the high intercorrelations between all the items, the high inter-scale correlations, and the fact that second and greater order entries in regression prediction equations did little to improve on the zero order correlations. It resulted in some high intercorrelations between the criteria and between the LBDQ Consideration and Structure dimension. Concerted effort should be directed toward the alleviation of this problem.

Since both DO AND SHOULD scores were recommended for retention, the unweighted SHOULD minus DO discrepancy scores should be computed and analyzed. The analyses performed here on the DO data - factor analysis regression analyses, analyses of variance - are equally appropriate for the discrepancy data.

Additional studies are needed wherein the questionnaire, objective multiple criteria, and other relevant organizational data is gathered. Through such studies norms can be established for DO, SHOULD and discrepancy scores and the scores can be used in prediction of the criteria. In this way decisions can be made regarding which leader behaviors are of some real organizational significance in terms of performance outcomes.

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# Appendix A - Pretested Questionnaire (Collective Phraseology)

PLEASE DO NOT PUT YOUR NAME ON THE QUESTIONNAIRE

## PART I

### INSTRUCTIONS

1. Think of your immediate superior in answering the questions. His rank is E - ☐ W - ☐ O - ☐
2. There are no right or wrong answers. Just answer the questions to the best of your ability. We are interested in your opinions and ideas.
3. Answer the items as follows
  - (a) Read the statement: \_\_\_\_\_
  - (b) Think about your immediate superior.
  - (c) Circle the letter indicating how often your superior does the thing described in the statement.
  - (d) Circle the letter indicating how often you think he should do the thing described in the statement.
  - (e) Circle the number indicating how important each aspect of leadership is.
  - (f) Don't spend a great deal of time on each item. Go ahead and answer each item in turn.

A - Always B - Almost Always C - Frequently D - Sometimes E - Infrequently F - Almost Never G - Never				7 - Extremely 6 - Very 5 - Fairly 4 - Somewhat 3 - Little 2 - Very Little 1 - Not at all
How Often (Does He?) Is	How Often Should (He?) He Be?	EXAMPLE	How Important is This Aspect of Leadership?	
A B C D <b>E</b> F G	A <b>B</b> C D E F G	He has a military bearing.	7 6 5 <b>4</b> 3 2 1	
A B C D E F G	A B C D E F G	1. He offers new approaches to problems.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	2. He counsels his subordinates.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	3. He is selfish.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	4. He keeps to himself.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	5. He is thoughtful and considerate of others.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	6. He makes his attitudes clear to his subordinates.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	7. He sets the example for his men on and off duty.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	8. He sees that subordinates have the materials they need to work with.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	9. He develops a sense of responsibility among subordinates.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	10. He hesitates to take action in the absence of instructions.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	11. He communicates effectively with his subordinates.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	12. He is overly ambitious at the expense of his subordinates and his Unit.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	13. He seeks additional and more important responsibilities.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	14. He seeks responsibility and takes responsibility for his actions.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	15. He acts without consulting his subordinates.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	16. He lets members of his Unit know what is expected of them.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	17. He rewards individuals for a job well done.	7 6 5 4 3 2 1	
A B C D E F G	A B C D E F G	18. He is aware of the state of his Unit's morale and does all he can to make it high.	7 6 5 4 3 2 1	

# Appendix A - Continued

<b>A - Always</b> <b>B - Almost Always</b> <b>C - Frequently</b> <b>D - Sometimes</b> <b>E - Infrequently</b> <b>F - Almost Never</b> <b>G - Never</b>			<b>7 - Extremely</b> <b>6 - Very</b> <b>5 - Fairly</b> <b>4 - Somewhat</b> <b>3 - Little</b> <b>2 - Very Little</b> <b>1 - Not at all</b>
How Often (Does Is ) He?	How Often Should (He? He Be?)		How Important is This Aspect of Leadership?
A B C D E F G	A B C D E F G	19. He refuses to explain his actions.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	20. He schedules work to be done.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	21. He sees to it that people under him work up to their capabilities.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	22. He demands results on time without considering the capabilities and welfare of his Unit.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	23. He trains and develops his subordinates.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	24. He criticizes a specific act rather than an individual.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	25. He expresses appreciation when a subordinate does a good job.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	26. He assigns immediate subordinates to specific tasks.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	27. He is approachable.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	28. He backs up subordinates in their actions.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	29. He makes sure that his role in the Unit is understood by his men.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	30. He keeps his men informed.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	31. He decides what shall be done and how it shall be done.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	32. He distorts reports to make his Unit look better.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	33. He is willing to make changes.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	34. He has a good working relationship with others at his level.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	35. He draws a definite line between himself and his subordinates.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	36. He constructively criticizes poor performance.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	37. He resists changes in ways of doing things.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	38. He sets the example.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	39. He sets high standards of performance.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	40. He does things to make it pleasant to be a member of the Unit.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	41. He explains the reason for his actions to his subordinates.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	42. He is friendly and approachable.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	43. He maintains definite standards of performance.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	44. He lets the members of his Unit know what is expected of them.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	45. He is easy to understand.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	46. He takes appropriate action on his own.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	47. He actively seeks suggestions from his men.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	48. He asks that subordinates follow standard rules and regulations.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	49. He keeps his men informed of the true situation, good and bad, under all circumstances.	7 6 5 4 3 2 1

# Appendix A - Continued

A - Always		7 - Extremely	
B - Almost Always		6 - Very	
C - Frequently		5 - Fairly	
D - Sometimes		4 - Somewhat	
E - Infrequently		3 - Little	
F - Almost Never		2 - Very Little	
G - Never		1 - Not at all	
How Often { Does } He? { Is }	How Often Should { He? } { He Be? }	How Important is This Aspect of Leadership?	
A B C D E F G	A B C D E F G	50. He puts suggestions made by his subordinates into operation.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	51. He is willing to support his subordinates.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	52. He is willing to make changes in ways of doing things.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	53. He is technically and tactically proficient.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	54. He tries out his ideas in the Unit.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	55. He knows his men and looks out for their welfare.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	56. He establishes and maintains a high level of discipline.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	57. He has a good working relationship with his superiors.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	58. He criticizes subordinates in front of others.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	59. He knows himself and seeks self-improvement.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	60. He employs his command in accordance with its capabilities.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	61. He looks out for the personal welfare of men in his Unit.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	62. He gives detailed instructions on how the job should be done.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	63. He trains his men as a team.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	64. He gives advance notice of changes.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	65. He approaches each task in a positive manner.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	66. He treats all subordinates as his equals.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	67. He fails to show an appreciation for priorities of work.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	68. He makes sound and timely decisions.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	69. He encourages the use of standard procedures.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	70. He knows the capabilities of his men.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	71. He assigns subordinates to particular tasks.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	72. He is technically competent to perform his duties.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	73. He treats people in an impersonal manner—like cogs in a machine.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	74. He makes it difficult for his subordinates to use initiative.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	75. He lets subordinates share in decision making.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	76. He stands up for his subordinates even though it might make him unpopular with his superior.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	77. He insures that tasks are understood, supervised, and accomplished.	7 6 5 4 3 2 1

Appendix A - Continued

PART II

Please answer the following questions.

1. What is your age?
2. What is your sex? (circle one)
  - 1 male
  - 2 female
3. How much education have you completed? (circle one)
  - 1 eight years or less
  - 2 completed some high school
  - 3 graduated from high school
  - 4 completed some college
  - 5 graduated from college
  - 6 masters degree or higher
4. What is your pay grade?  
E -  W -  O -
5. How many years have you been in the service?
6. (a) For Enlisted men: What is your PMOS?       
 (b) For Officers and Warrant Officers: What is your Branch? (circle one)
 

1. ADA	11. MC
2. AGC	12. MI
3. ARMOR	13. MPC
4. CH	14. MSC
5. CMLC	15. OrdC
6. CE	16. QMC
7. FA	17. SigC
8. FC	18. TC
9. INF	19. WAC
10. JAGC	20. Aviation Warrant Officer
7. What is your race? (circle one)
  - 1 American Indian
  - 2 Caucasian (white)
  - 3 Negro (black)
  - 4 Spanish-American
  - 5 Other \_\_\_\_\_
8. What is the type/location of your unit? (circle one)
 

1. CONUS (TOE-operational unit)	7. USARAL (TOE-operational unit)
2. CONUS (training base)	8. USARAL (other)
3. CONUS (other)	9. USARSO (TOE-operational unit)
4. Europe (TOE-operational unit)	10. USARSO (other)
5. Europe (other)	11. Korea (TOE-operational unit)
6. SETAF	12. Korea (other)

## Appendix A - Continued

### PART III

**Think of your immediate superior and those who work under him.  
Please answer the following:**

1. Does HIS UNIT maintain a reputation for getting the job done? (check one)  
☐ A All the time  
☐ B Most of the time  
☐ C Some of the time  
☐ D Not very much of the time  
☐ E Never
2. Does HE maintain a reputation for getting the job done? (check one)  
☐ A All the time  
☐ B Most of the time  
☐ C Some of the time  
☐ D Not very much of the time  
☐ E Never
3. How often does HIS UNIT receive recognition for a job well done? (check one)  
☐ A Very often  
☐ B Fairly often  
☐ C Sometimes  
☐ D Not very often  
☐ E Never
4. How often does HE receive recognition for a job well done? (check one)  
☐ A Very often  
☐ B Fairly often  
☐ C Sometimes  
☐ D Not very often  
☐ E Never
5. How do you personally feel about the overall performance of the superior you have been describing in the item above? (check one)  
☐ 7 He is the best leader I know or have ever worked for.  
☐ 6 He is closer to 7 than 3.  
☐ 5 He is between 7 and 3.  
☐ 4 He is closer to 3 than 7.  
☐ 3 He is average among the leaders I know or have worked for.  
☐ 2 He is between 3 and 1.  
☐ 1 He is one of the least able leaders I know or have worked for.
6. How satisfied are you being a member of his unit? (Circle the number that best represents your opinion.)  
Very Satisfied 7 6 5 4 3 2 1 Very Dissatisfied

**Enclose the completed questionnaire in the envelope provided. Postage is not needed.**

## Thank You



# Appendix B - Pretested Questionnaire (Personalized Phraseology)

PLEASE DO NOT PUT YOUR NAME ON THE QUESTIONNAIRE

## PART I

### INSTRUCTIONS

1. Think of your immediate superior in answering the questions. His rank is E - ☐ W - ☐ O - ☐
2. There are no right or wrong answers. Just answer the questions to the best of your ability. We are interested in your opinions and ideas.
3. Answer the items as follows:
  - (a) Read the statement:
  - (b) Think about your immediate superior.
  - (c) Circle the letter indicating how often your superior does the thing described in the statement.
  - (d) Circle the letter indicating how often you think he should do the thing described in the statement.
  - (e) Circle the number indicating how important each aspect of leadership is.
  - (f) Don't spend a great deal of time on each item. Go ahead and answer each item in turn.

A - Always  
B - Almost Always  
C - Frequently  
D - Sometimes  
E - Infrequently  
F - Almost Never  
G - Never

7 - Extremely  
6 - Very  
5 - Fairly  
4 - Somewhat  
3 - Little  
2 - Very Little  
1 - Not at all

How Often  
{ Does He? }  
{ Is }  
A B C D E F G

How Often  
{ Should He? }  
{ He Be? }  
A B C D E F G

EXAMPLE

How Important is  
This Aspect of  
Leadership?  
7 6 5 4 3 2 1

A B C D E F G A B C D E F G

He has a military bearing.

7 6 5 4 3 2 1

A B C D E F G	A B C D E F G	1. He offers new approaches to problems.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	2. He talks to me about how things are going.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	3. He is selfish.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	4. He keeps to himself.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	5. He is thoughtful and considerate of me.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	6. He makes his attitudes clear to me.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	7. He sets the example for me on and off duty.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	8. He sees that I have the materials I need to work with.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	9. He develops a sense of responsibility in me.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	10. He hesitates to take action in the absence of instructions.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	11. He talks in a way that I can understand.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	12. He is overly ambitious at the expense of me and the Unit.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	13. He seeks additional and more important responsibilities.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	14. He seeks responsibility and takes responsibility for his actions.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	15. He acts without consulting me.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	16. He lets me know what is expected of me.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	17. He rewards me for a job well done.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	18. He is aware of my morale and does all he can to make it high.	7 6 5 4 3 2 1

Appendix B - Continued

A - Always B - Almost Always C - Frequently D - Sometimes E - Infrequently F - Almost Never G - Never				7 - Extremely 6 - Very 5 - Fairly 4 - Somewhat 3 - Little 2 - Very Little 1 - Not at all
How Often (Does Is ) He?	How Often Should (He? He Be?)			How Important is This Aspect of Leadership?
A B C D E F G	A B C D E F G	19. He refuses to explain his actions.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	20. He schedules the work to be done.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	21. He sees to it that I work up to my capabilities.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	22. He demands results on time without considering my capabilities and welfare.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	23. He sees to it that I get the training and development I need.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	24. He lets me know when I've done something wrong without condemning me.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	25. He lets me know when I have done a good job.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	26. He assigns specific tasks to me.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	27. He is approachable.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	28. He backs me up in my actions.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	29. He makes sure that I understand his role in the Unit.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	30. He keeps me informed.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	31. He decides what shall be done and how it shall be done.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	32. He distorts reports to make his Unit look better.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	33. He is willing to make changes.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	34. He has a good working relationship with others at his level.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	35. He draws a definite line between himself and me.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	36. He constructively criticizes poor performance.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	37. He resists changes in ways of doing things.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	38. He sets the example.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	39. He sets high standards of performance.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	40. He does things to make it pleasant for me to be a member of the Unit.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	41. He explains the reason for his actions to me.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	42. He is friendly and approachable.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	43. He maintains definite standards of performance.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	44. He lets me know what is expected of me.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	45. He is easy to understand.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	46. He takes appropriate action on his own.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	47. He actively seeks my suggestions.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	48. He asks that I follow standard rules and regulations.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	49. He keeps me informed of the true situation, good and bad, under all circumstances.		7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	50. He puts suggestions I make into operation.		7 6 5 4 3 2 1

# Appendix B - Continued

A - Always B - Almost Always C - Frequently D - Sometimes E - Infrequently F - Almost Never G - Never		7 - Extremely 6 - Very 5 - Fairly 4 - Somewhat 3 - Little 2 - Very Little 1 - Not at all	
How Often (Does He Is )	How Often Should (He? He Be?)		How Important is This Aspect of Leadership?
A B C D E F G	A B C D E F G	51. He is willing to support me.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	52. He is willing to make changes in ways of doing things.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	53. He is technically and tactically proficient.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	54. He tries out his ideas on me.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	55. He knows me and looks out for my welfare.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	56. He establishes and maintains a high level of discipline.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	57. He has a good working relationship with his superiors.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	58. He criticizes me in front of others.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	59. He knows himself and seeks self-improvement.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	60. He utilizes me in accordance with my capabilities.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	61. He looks out for my personal welfare.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	62. He gives me detailed instructions on how the job should be done.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	63. He trains me as a team member.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	64. He gives advance notice of changes.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	65. He approaches each task in a positive manner.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	66. He treats me as his equal.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	67. He fails to show an appreciation for priorities of work.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	68. He makes sound and timely decisions.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	69. He encourages the use of standard procedures.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	70. He knows my capabilities.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	71. He assigns me to particular tasks.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	72. He is technically competent to perform his duties.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	73. He treats me in an impersonal manner—like a cog in a machine.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	74. He makes it difficult for me to use my initiative.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	75. He lets me share in decision making.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	76. He stands up for me even though it might make him unpopular with his superior.	7 6 5 4 3 2 1
A B C D E F G	A B C D E F G	77. He insures that tasks are understood, supervised, and accomplished.	7 6 5 4 3 2 1

Appendix B - Continued

PART II

Please answer the following questions.

1. What is your age?
2. What is your sex? (circle one)
  - 1 male
  - 2 female
3. How much education have you completed? (circle one)
  - 1 eight years or less
  - 2 completed some high school
  - 3 graduated from high school
  - 4 completed some college
  - 5 graduated from college
  - 6 masters degree or higher
4. What is your pay grade?  
E -  W -  O -
5. How many years have you been in the service?
6. (a) For Enlisted men: What is your PMOS?        
 (b) For Officers and Warrant Officers: What is your Branch? (circle one)
 

1. ADA	11. MC
2. AGC	12. MI
3. ARMOR	13. MPC
4. CH	14. MSC
5. CMLC	15. OrdC
6. CE	16. QMC
7. FA	17. SigC
8. FC	18. TC
9. INF	19. WAC
10. JAGC	20. Aviation Warrant Officer
7. What is your race? (circle one)
  - 1 American Indian
  - 2 Caucasian (white)
  - 3 Negro (black)
  - 4 Spanish-American
  - 5 Other \_\_\_\_\_
8. What is the type/location of your unit? (circle one)
 

1. CONUS (TOE-operational unit)	7. USARAL (TOE-operational unit)
2. CONUS (training base)	8. USARAL (other)
3. CONUS (other)	9. USARSO (TOE-operational unit)
4. Europe (TOE-operational unit)	10. USARSO (other)
5. Europe (other)	11. Korea (TOE-operational unit)
6. SETAF	12. Korea (other)



# Appendix C - Item Means

## ITEM MEANS OF 77 ITEMS

### Do, Should & Importance Responses

	DO	CH.	IMP.		DO	SH.	IMP
1	4.32	5.11	5.30	31	4.79	5.14	5.47
2	4.33	5.21	5.64	32	2.82	2.01	4.47
3	2.92	1.84	4.10	33	5.01	5.66	5.51
4	3.12	2.87	3.77	34	5.67	6.28	5.94
5	4.63	5.77	5.65	35	4.09	3.87	5.02
6	5.20	5.99	5.83	36	4.47	5.35	5.52
7	4.96	5.96	5.66	37	3.39	2.81	4.80
8	4.84	6.04	5.78	38	4.88	6.04	6.10
9	4.75	6.04	5.96	39	5.31	6.02	6.20
10	3.12	2.69	5.06	40	4.06	5.66	5.66
11	5.00	6.21	6.04	41	4.29	5.52	5.73
12	3.10	2.29	4.49	42	5.27	6.10	5.87
13	4.63	5.08	5.23	43	5.17	5.98	6.04
14	5.23	6.06	5.88	44	5.30	6.21	5.98
15	4.02	3.48	4.83	45	5.09	6.15	6.04
16	5.57	6.22	6.15	46	5.17	5.86	5.86
17	4.21	5.57	5.59	47	4.30	5.61	5.90
18	4.25	5.84	6.01	48	5.57	5.84	5.83
19	3.65	3.11	5.07	49	4.74	6.07	6.20
20	4.57	5.72	5.51	50	4.21	4.87	5.56
21	4.50	6.03	5.86	51	5.11	5.97	6.21
22	3.49	2.76	4.78	52	4.66	5.55	5.74
23	4.12	5.41	5.76	53	5.08	6.13	6.27
24	4.62	4.93	5.19	54	4.57	4.99	5.36
25	4.60	5.84	5.95	55	4.73	6.19	6.18
26	5.17	5.43	5.50	56	4.88	5.64	5.87
27	5.19	6.27	6.17	57	5.61	6.33	6.03
28	5.05	5.92	6.10	58	2.99	1.95	4.92
29	5.56	6.03	5.73	59	4.79	5.88	5.99
30	4.93	6.27	6.19	60	4.98	6.10	6.00

[illegible]

# Appendix D - Revised Questionnaire, The Leader Behavior Assessment Schedule

**PLEASE DO NOT PUT YOUR NAME ON THE QUESTIONNAIRE**

## PART I

### INSTRUCTIONS

1. Think of your immediate superior in answering the questions. His rank is E -  W -  O -
2. There are no right or wrong answers. Just answer the questions to the best of your ability. We are interested in your opinions and ideas.
3. Answer the items as follows
  - (a) Read the statement: \_\_\_\_\_
  - (b) Think about your immediate superior.
  - (c) Circle the letter indicating how often your superior does the thing described in the statement.
  - (d) Circle the letter indicating how often you think he should do the thing described in the statement.

Don't spend a great deal of time on each item. Go ahead and answer each item in turn.

- A - Always  
B - Almost Always  
C - Frequently  
D - Sometimes  
E - Infrequently  
F - Almost Never  
G - Never

How Often  
(Does He/  
Is )

How Often  
Should (He?  
He Be?)

EXAMPLE

A B C D <b>E</b> F G	A B C D <b>E</b> F G	He has a military bearing.
A B C D E F G	A B C D E F G	1. He sees that I have the materials I need to work with.
A B C D E F G	A B C D E F G	2. He rewards me for a job well done.
A B C D E F G	A B C D E F G	3. He is selfish.
A B C D E F G	A B C D E F G	4. He hesitates to take action in the absence of instructions.
A B C D E F G	A B C D E F G	5. He keeps to himself.
A B C D E F G	A B C D E F G	6. He schedules the work to be done.
A B C D E F G	A B C D E F G	7. He backs me up in my actions.
A B C D E F G	A B C D E F G	8. He is thoughtful and considerate of me.
A B C D E F G	A B C D E F G	9. He seeks responsibility and takes responsibility for his actions.



Appendix D - Continued

- |               |               |  |
|---------------|---------------|--|
| A B C D E F G | A B C D E F G | 10. He makes his attitudes clear to me.  |
| A B C D E F G | A B C D E F G | 11. He sees to it that I work up to my capabilities.                                   |
| A B C D E F G | A B C D E F G | 12. He keeps me informed.  |
| A B C D E F G | A B C D E F G | 13. He is aware of my morale and does all he can to make it high.                      |
| A B C D E F G | A B C D E F G | 14. He acts without consulting me.   |
| A B C D E F G | A B C D E F G | 15. He knows me and looks out for my welfare.  |
| A B C D E F G | A B C D E F G | 16. He assigns specific tasks to me.   |
| A B C D E F G | A B C D E F G | 17. He decides what shall be done and how it shall be done.                            |
| A B C D E F G | A B C D E F G | 18. He refuses to explain his actions.   |
| A B C D E F G | A B C D E F G | 19. He lets me know what is expected of me.  |
| A B C D E F G | A B C D E F G | 20. He knows himself and seeks self-improvement.                                       |
| A B C D E F G | A B C D E F G | 21. He keeps me informed of the true situation, good and bad, under all circumstances. |
| A B C D E F G | A B C D E F G | 22. He sets the example.   |
| A B C D E F G | A B C D E F G | 23. He demands results on time without considering my capabilities and welfare.        |
| A B C D E F G | A B C D E F G | 24. He makes sure that I understand his role in the Unit.                              |
| A B C D E F G | A B C D E F G | 25. He looks out for my personal welfare.  |
| A B C D E F G | A B C D E F G | 26. He is technically and tactically proficient.                                       |
| A B C D E F G | A B C D E F G | 27. He is friendly and approachable.   |
| A B C D E F G | A B C D E F G | 28. He distorts reports to make his Unit look better.                                  |
| A B C D E F G | A B C D E F G | 29. He is willing to make changes.   |
| A B C D E F G | A B C D E F G | 30. He trains me as a team member.   |
| A B C D E F G | A B C D E F G | 31. He tried out his ideas on me.  |

Appendix D - Continued

- |               |               |   |
|---------------|---------------|---|
| A B C D E F G | A B C D E F G | 32. He maintains definite standards of performance.                       |
| A B C D E F G | A B C D E F G | 33. He does things to make it pleasant for me to be a member of the Unit. |
| A B C D E F G | A B C D E F G | 34. He has a good working relationship with others at his level.          |
| A B C D E F G | A B C D E F G | 35. He gives advance notice of changes.                                   |
| A B C D E F G | A B C D E F G | 36. He establishes and maintains a high level of discipline.              |
| A B C D E F G | A B C D E F G | 37. He is easy to understand.   |
| A B C D E F G | A B C D E F G | 38. He criticizes me in front of others.                                  |
| A B C D E F G | A B C D E F G | 39. He resists changes in ways of doing things.                           |
| A B C D E F G | A B C D E F G | 40. He treats me as his equal.  |
| A B C D E F G | A B C D E F G | 41. He utilizes me in accordance with my capabilities.                    |
| A B C D E F G | A B C D E F G | 42. He asks that I follow standard rules and regulations.                 |
| A B C D E F G | A B C D E F G | 43. He treats me in an impersonal manner-- like a cog in a machine.       |
| A B C D E F G | A B C D E F G | 44. He takes appropriate action on his own.                               |
| A B C D E F G | A B C D E F G | 45. He makes sound and timely decisions.                                  |
| A B C D E F G | A B C D E F G | 46. He approaches each task in a positive manner.                         |
| A B C D E F G | A B C D E F G | 47. He puts suggestions I make into operation.                            |
| A B C D E F G | A B C D E F G | 48. He lets me share in decision making.                                  |
| A B C D E F G | A B C D E F G | 49. He has a good working relationship with his superiors.                |
| A B C D E F G | A B C D E F G | 50. He encourages the use of standard procedures.                         |

Appendix D - Continued

- |               |               |   |
|---------------|---------------|---|
| A B C D E F G | A B C D E F G | 51. He is technically competent to perform his duties.                  |
| A B C D E F G | A B C D E F G | 52. He assigns me to particular tasks.                                  |
| A B C D E F G | A B C D E F G | 53. He insures that tasks are understood, supervised, and accomplished. |

# Appendix E - Item Cross Reference Table

## Cross Reference for Items on Revised Questionnaire and Field Pre-tested 77 Item Questionnaire

New	Old	New	Old	New	Old
1	8	21	49	41	60
2	17	22	38	42	48
3	3 *	23	22 *	43	73 *
4	10 *	24	29	44	46
5	4 *	25	61	45	68
6	20	26	53	46	65
7	28	27	42	47	50
8	5	28	32 *	48	75
9	14	29	33	49	57
10	6	30	63	50	69
11	21	31	54	51	72
12	30	32	43	52	71
13	18	33	40	53	77
14	15 *	34	34		
15	55	35	64		
16	26	36	56		
17	31	37	45		
18	19 *	38	58 *		
19	16	39	37 *		
20	59	40	66		

\*Negatively scored items

# Appendix F - Item Loadings

Item Loadings - 43 item 3 factor varimax rotated solution

Item Number	Factor 1	Factor 2	Factor 3
1	.52	.49	.18
2	.42	.57	.30
3	.34	.17	.57
5	.60	.37	.42
7	.68	.27	.13
8	.47	.58	.31
10	.09	.16	.54
11	.52	.32	.48
12	.32	.10	.54
13	.18	.34	.33
17	.68	.31	.28
18	.59	.49	.40
21	.44	.66	.27
22	.37	.22	.45
23	.48	.51	.34
24	.42	.33	.08
25	.63	.47	.35
26	.42	.51	.02
27	.67	.27	.29
28	.81	.15	.15
32	.26	.31	.41
35	.18	.40	.40
36	.10	.29	.29
37	.04	.19	.72
39	.65	.40	.04
41	.52	.54	.36
44	.11	.59	.44
45	.74	.22	.15
46	.40	.41	.39
49	.55	.60	.37
51	.79	.36	.26
52	.55	.49	.35
56	.35	.70	.17
58	.16	.07	.68
62	.39	.54	.04
65	.53	.60	.20
67	.02	.07	.49
70	.52	.56	.34
72	.38	.66	.37
73	.43	.31	.57
74	.13	.15	.75
75	.52	.45	.37
76	.76	.12	.19
Eigenvalues	20.00	2.4	1.4
Proportion of the variance calculated from the unaltered correlation matrix	47.4	6.9	4.4 = 58.7
% of common variance accoun- ted for by the unrotated factors	83.7	10.3	6.0 = 100.0

# Appendix F - Continued

## Item Loadings - 77 item 4 factor varimax rotated solution

Item Number	Factor 1	Factor 2	Factor 3	Factor 4
1	.47	.43	.30	.20
2	.55	.27	.37	.23
3	.12	.15	.63	.28
4	.17	.17	.09	.37
5	.39	.39	.60	.26
6	.29	.26	.03	.52
7	.24	.65	.27	.19
8	.60	.31	.37	.26
9	.42	.46	.42	.30
10	.12	.01	.24	.53
11	.28	.37	.44	.48
12	.12	.14	.48	.31
13	.30	.13	.00	.66
14	.27	.26	.18	.72
15	.25	.20	.19	.52
16	.18	.42	.06	.63
17	.28	.56	.44	.28
18	.44	.41	.50	.37
19	.15	.23	.68	.04
20	.64	.18	.21	.14
21	.63	.30	.39	.24
22	.23	.16	.66	.08
23	.52	.31	.41	.30
24	.33	.34	.23	.09
25	.45	.45	.49	.31
26	.60	.39	.09	.08
27	.23	.56	.56	.14
28	.18	.72	.31	.18
29	.39	.19	.01	.61
30	.48	.50	.43	.28
31	.44	.58	.08	.06
32	.38	.11	.52	.07
33	.13	.23	.25	.69
34	.00	.42	.12	.59
35	.44	.13	.18	.39

## (Cont'd) --Item Loadings --77 item 4 factor varimax rotated solution

Item Number	Factor 1	Factor 2	Factor 3	Factor 4
36	.20	.00	.25	.27
37	.12	.11	.43	.61
38	.44	.56	.39	.34
39	.42	.69	.10	.21
40	.36	.40	.60	.27
41	.53	.35	.44	.33
42	.04	.70	.45	.17
43	.37	.76	.17	.22
44	.53	.02	.11	.62
45	.22	.72	.25	.21
46	.39	.33	.17	.58
47	.50	.37	.50	.36
48	.40	.57	.09	.10
49	.60	.36	.49	.29
50	.33	.54	.42	.14
51	.39	.65	.39	.29
52	.49	.39	.47	.28
53	.66	.32	.44	.26
54	.65	.21	.22	.10
55	.54	.40	.55	.30
56	.67	.26	.31	.13
57	.36	.08	.20	.58
58	.03	.04	.53	.46
59	.58	.31	.47	.29
60	.63	.32	.50	.15
61	.51	.39	.53	.27
62	.57	.37	.12	.13
63	.55	.40	.35	.28
64	.54	.35	.48	.30
65	.64	.40	.34	.17
66	.23	.21	.36	.41
67	.06	.01	.17	.45
68	.50	.57	.32	.30
69	.42	.62	.03	.01
70	.57	.33	.51	.23
71	.52	.37	.15	.00
72	.66	.24	.42	.28
73	.33	.21	.69	.22
74	.10	.05	.52	.57
75	.43	.32	.51	.27
76	.11	.68	.32	.23
77	.64	.39	.41	.22
Eigenvalues	36.9	4.4	2.9	2.5
Proportion of the variance calculated from the unaltered correlation matrix	48.4	6.3	4.3	3.7 = 62.8
% of common variance accounted for by the unrotated factors	79.1	9.4	6.2	5.3 = 100.0

Appendix G - Correlations between factor scores and performance and satisfaction ratings

Factor \ Criterion*	1	2	3	4	5	6
I	.21	.53	.48	.32	.70	.61
II	.27	.63	.38	.16	.61	.57
III	.13	.43	.43	.21	.69	.64
IV	.36	.53	.21	.23	.67	.66

\*Criterion codes

- 1 - Reputation of leader's unit for getting the job done
- 2 - Leader's reputation for getting the job done
- 3 - How often the unit receives recognition for good job
- 4 - How often the leader receives recognition for a good job
- 5 - Subordinate's rating of his leader's overall performance
- 6 - Subordinate's rating of his satisfaction with being a member of the leader's unit



## Appendix H - Users Manual for the U.S. Army Military Leadership Behavior Survey (MLBS)

### INTRODUCTION

The U. S. Army Military Leadership Behavior Survey (MLBS) is the result of previous research efforts by the U. S. Army War College and the CONARC Leadership Board. Utilizing these prior efforts, the Human Resources Research Organization (HumRRO), under contract to the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI), developed the survey form discussed in this manual. The result of these multiple efforts is a survey of leader behaviors for use in the Army. The survey form and administration, scoring and interpretation procedures have been developed for use by military personnel to provide measures of leader behavior.

Included in the manual are (a) a description of the survey instrument and its development, (b) procedures for administration of the survey, and (c) procedures for scoring and profiling the survey results.

The survey and results can serve any of several purposes or functions including providing a means of assessing current leader behavior in the Army, indicating changes or trends in leader behavior, or serving as an aid in diagnosing the nature of suspected or potential leader problems.

## Appendix H - Continued

### DEFINITION OF SCALES

The Military Leadership Behavior Survey (MLBS) measures four basic aspects or dimensions of leader behavior. These dimensions are measured using four scales made up of 10 or 12 items describing leader behaviors.\* The scales are the result of two studies of ratings by subordinates of the leader behaviors of their immediate superiors. The following are descriptions of the four scales of leader behaviors employed in this questionnaire.

1. Task Professionalism - This scale is characterized by the providing of structure in terms of scheduling, task allocation, task achievement, communication regarding task requirements, competency, and a positive approach.
2. Task-Oriented Consideration - This scale deals with structure in terms of setting an example, reduction of ambiguity in the work situation, communication/approachability, backing up subordinates, and providing positive rewards.
3. People-Oriented Consideration - This scale deals with showing consideration for the members of the unit, being concerned with the welfare and morale of the unit and not concerned only with personal welfare, and being open in dealing with members of the unit.

\* In addition to the 42 items used to make up the four scales, another 10 items are included. The items are those items measuring one of Army's Principles of Leadership not used as part of one of the scales or those items which complete the scales of Consideration and Initiation of Structure from Stogdill (1973). Note that the MLBS includes all items from those two scales.

Appendix H - Continued

4. Personal/Interpersonal Professionalism - This scale is defined by leader behaviors regarding the maintaining of good, professional relationships laterally and hierarchically (up and down organizational levels), flexibility and actively fulfilling responsibilities as a leader.

Appendix H - Continued

ADMINISTERING THE SURVEY QUESTIONNAIRE

General Instructions

- a. The MLBS should be administered in a physical setting which allows adequate spacing of individuals so that privacy is maintained. In addition, care should be taken that complete confidentiality of individual subjects is assured. The data collection sessions are to be conducted in accordance with the instructions given in the following paragraphs of this manual without deviation.
- b. The data collection session is not a timed situation. However, it is expected that the required data and attitudes can be accomplished in thirty minutes including seating, distribution of materials, completion of the questionnaire, and collection of the completed questionnaires.

Instructions to Respondents

- a. The instructions which are indented and printed in larger type are to be read aloud to the respondents. The other instructions in regular type are for the examiner only.
- b. When the respondents are seated, say:

WE ARE NOW GOING TO DISTRIBUTE THE MATERIALS FOR THE MILITARY LEADERSHIP BEHAVIOR SURVEY. DO NOT BEGIN ANY WORK ON THE FORMS UNTIL YOU ARE ASKED TO PROCEED. PLEASE DO NOT PUT YOUR NAME ON THE QUESTIONNAIRE. YOUR RESPONSES WILL BE KEPT STRICTLY CONFIDENTIAL. AT THE TOP OF THE RESPONSE FORM PLEASE

Appendix H - Continued

INDICATE YOUR UNIT. IN ADDITION, PLEASE INDICATE, AT THE TOP OF THE RESPONSE FORM, THE GRADE AND POSITION OF YOUR IMMEDIATE SUPERIOR (E.G. PLATOON SERGEANT-SGT(E-5), COMPANY COMMANDER-CAPTAIN, UNIT SUPERVISOR-SGT MAJOR, ETC). THIS WILL BE THE PERSON WHOSE BEHAVIOR AS A LEADER YOU WILL BE ASKED TO DESCRIBE USING THE QUESTIONNAIRE. THERE ARE 53 ITEMS, EACH ITEM DESCRIBES A POSSIBLE BEHAVIOR OR ACTIVITY OF A LEADER. FOR EACH ITEM (BEHAVIOR OR ACTIVITY) YOU ARE TO INDICATE TWO THINGS: FIRST, HOW OFTEN YOUR IMMEDIATE SUPERIOR DOES THIS ACTIVITY OR BEHAVIOR AND SECOND, HOW OFTEN YOUR IMMEDIATE SUPERIOR SHOULD DO THIS ACT OR BEHAVIOR. INDICATE EACH OF THESE THINGS (DO AND SHOULD) BY CIRCLING A LETTER ON EACH SIDE OF THE ITEM. USE THE LETTERS ON THE LEFT TO INDICATE HOW OFTEN YOUR SUPERIOR DOES WHAT THE ITEM SAYS. USE THE LETTERS ON THE RIGHT TO INDICATE HOW OFTEN YOU THINK YOUR SUPERIOR SHOULD DO WHAT THE ITEM SAYS. THERE ARE NO RIGHT OR WRONG ANSWERS BUT DO YOUR BEST TO BE ACCURATE IN DESCRIBING YOUR SUPERIOR. ANSWER ALL THE ITEMS. YOU MAY BEGIN.

When all respondents have completed the questionnaire, collect the materials and adjourn the group.

## Appendix H - Continued

### SCORING PROCEDURE

The scoring of each MLBS must presently be done by hand. The scoring should be done by someone not directly involved in either filling out the questionnaire or being rated by those answering the questionnaire. The procedure for scoring and profiling results is straight-forward and easy to accomplish.\*

#### Instructions to Scorer Phase I

Step 1. Examine the answer sheet for missing data. Make certain each answer sheet has the rank or position of the individual whose behavior is being described. This should appear in the upper right corner of the questionnaire. Questionnaires which do not have this information written in should be discarded. Questionnaires which do not have all items answered should also be discarded.

---

\* The scoring procedure includes scoring of the raw scores. The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) is currently gathering additional data in order to provide standardized scoring procedures. The advantage of standardized scores is that they provide a basis on which to compare a given leader's scores with the scores of a large group of leaders and provides a basis on which to compare the scores on one dimension of leadership with the scores on another. For example, if a leader gets a score of 50 on the first factor and 65 on the second factor, these raw scores do not let you know whether 50 is the good score or not in relation to other leaders of his pay grade in the Army. Also, you do not know whether the 50 is a better score on the first factor than 65 is on the second factor. Standard scores take care of these problems. ARI will make available the standardized scoring when the information is available.

## Appendix H - Continued

- Step 2. Get a RECORD SHEET for "DO" responses and a RECORD SHEET for "SHOULD" responses. Answers will be transferred from the questionnaire to these sheets and converted from a letter to a number.
- Step 3. Record on each RECORD SHEET, in the upper right hand corner, the rank and position of the leader being described. This information should be on the questionnaire in the upper right hand corner.
- Step 4. Now begin scoring the respondent's answers. First score the "DO" responses which are in the left-hand column. Starting with item #1, look at the respondent's answer to the item (circled letter). Enter the number which corresponds to the circled letter for that item in the space provided in the record sheet for item #1. To determine the number that should be entered, use the following table:

For items marked with an asterisk(\*) on the RECORD SHEET the following numbers correspond to the circled letters:

CIRCLED LETTER on Respondent's questionnaire	A	R	C	D	E	F	G
Number to enter on RECORD SHEET	1	2	3	4	5	6	7

For all other items the following numbers correspond to the circled letters:

CIRCLED LETTER on Respondent's questionnaire	A	B	C	D	E	F	G
Number to enter on RECORD SHEET	7	6	5	4	3	2	1

# Appendix H - Continued

Rank of Leader \_\_\_\_\_  
Position of Leader \_\_\_\_\_

## RECORD SHEET

For "SHOULD" responses only  
(right-hand column of responses)

### SCALE

### TOTAL

I. Task Professionalism 1 6 11 16 21 26 31 36 41 46 51 53 ( )

II. Task-Oriented Consideration 2 7 12 17 22 27 32 37 42 47 ( )

III. People-Oriented Consideration 3\* 8 13 18\* 23\* 28\* 33 38\* 43\* 48 ( )

IV. Personal/ Interpersonal Professionalism 4\* 9 14\* 19 24 29 34 39\* 44 49 ( )

V. 5\* 10 15 20 25 30 35 40 45 50 52 ( )

Items marked with an asterisk (\*) are scored as follows:

A B C D E F G  
1 2 3 4 5 6 7

All other items are scored as follows:

A B C D E F G  
7 6 5 4 3 2 1



## Appendix H - Continued

Enter the correct number for each item on the "DO" scale. Be careful to code the asterisk (\*) items using the proper table.

Step 5. When you have entered numbers for all items on the "DO" RECORD SHEET, go through the same process for the "SHOULD" items which are answered in the right-hand column of the questionnaire.

Be sure to use the "SHOULD" RECORD SHEET for the "SHOULD" responses.

Do this for each questionnaire which has been completed. Use new RECORD SHEETS (one "DO" and one "SHOULD" for each respondent's questionnaire).

You will notice that the numbered spaces for item responses on the RECORD SHEETS are in numerical order from top to bottom as you proceed across the sheet from the left. This will allow you to go directly down the respondent's questionnaire with a minimum of difficulty in locating the corresponding item space on the RECORD SHEET.

Step 6. When all responses for all respondents have been transferred and coded on the RECORD SHEETS, you must go back through each RECORD SHEET and total up the scale scores. Simply add up the numbers in each row and enter the total in the space provided at the far right of each row. The bottom row on each RECORD SHEET (Items 5,10,15,20,25,30,35,40,45,50, and 52) are not totalled for a scale score.

Note: At the present time, standard score conversions are not available for the raw scores. Therefore, do not perform the following steps for conversion to standard scores. Instead, utilize the raw scores in calculations and profiling.

## Appendix H - Continued

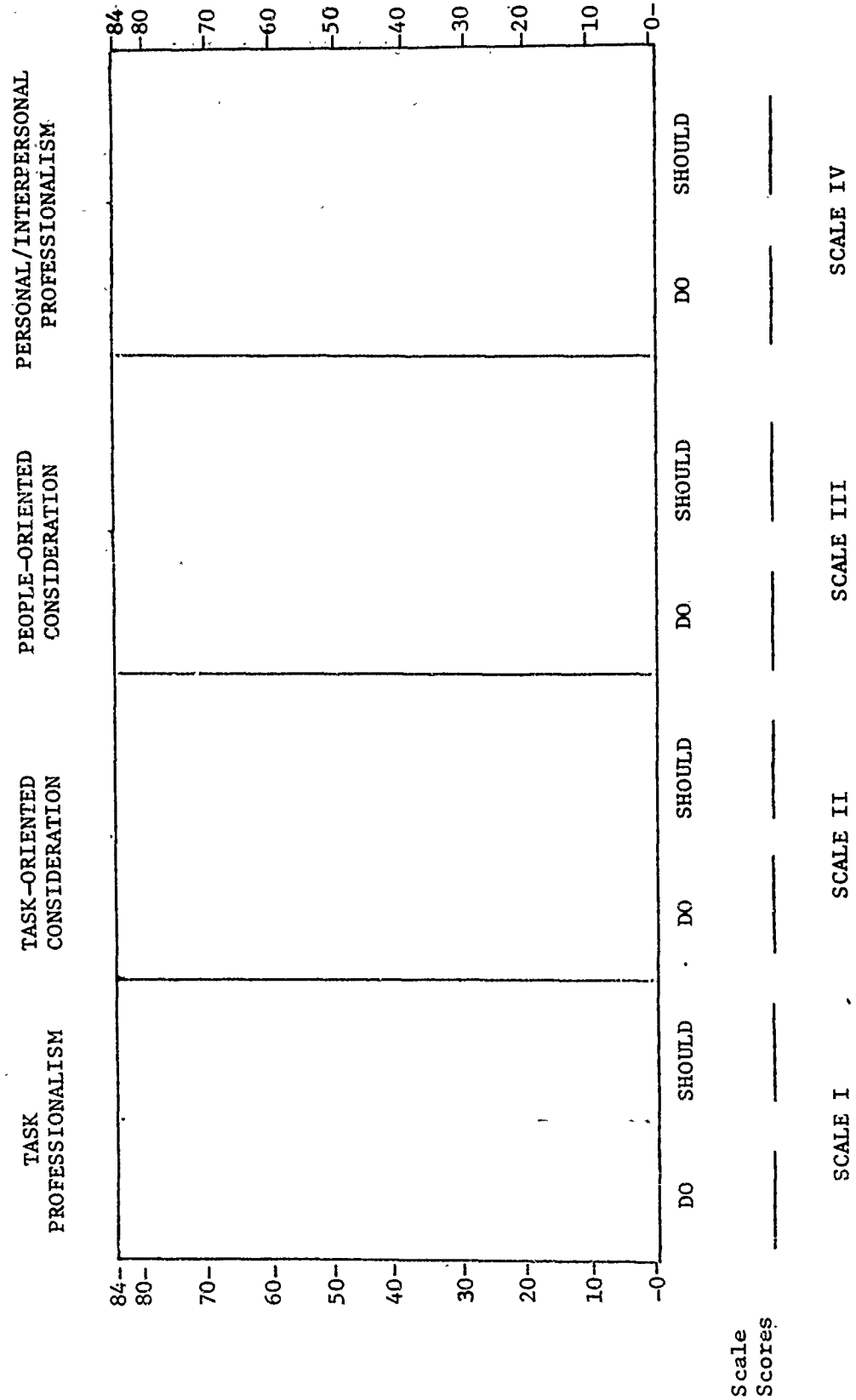
Step 7. To enter scores on the PROFILE SHEET, the scores calculated from the RECORD SHEETS are converted to standard scores. Find the standard score CONVERSION CHARTS. On each chart there is a separate table for each of the four scales on "DO" and "SHOULD". Be sure you refer to the proper chart for each raw score conversion. Each raw score value is printed in the Raw Score column and its equivalent standard score is printed adjacent to the raw score in the Standard Score column. Select the correct chart (Scale I "DO", etc.) find the raw score value and read the standard score value immediately adjacent. Enter the standard score value on the PROFILE SHEET in the appropriate space. (If more than one respondent's score is being used to describe a leader, then average the raw scores by adding them together for each scale and dividing by the number of respondents used; then find the standard score for the average raw score.)

## Appendix H - Continued

### Phase II

- Step 1. When scale scores (row totals) have been calculated for all RECORD SHEETS, the answers are ready to be profiled on the LEADER BEHAVIOR PROFILE SHEET. Separate RECORD SHEETS into two stacks; one stack for "DO" RECORD SHEETS, and one stack for "SHOULD" RECORD SHEETS.
- Step 2. After all scale score calculations have been completed and the resulting values entered in the appropriate spaces at the bottom of the PROFILE SHEETS, the charting or "profiling" of these values may be carried out. On each side of the profile chart is a scale of numerical values ranging from "0" at the bottom to "84" at the top. These values represent the range of possible scale scores which may be obtained for each leader on the "DO" and "SHOULD" categories of scales I, II, III, and IV. To profile the scale scores you simply draw a horizontal line across the respective column of the chart at the level which is numerically equivalent to the scale score in the space at the bottom of that column. For example, if calculations yield a "DO" score on Scale I (Task Professionalism) of '58' for a particular leader, this value is entered in the appropriate space at the bottom of the PROFILE SHEET, and a line is drawn across that column on the chart at the 58 level (about two-thirds of the way up between '50' and '60' on the chart. This is done for each scale score on the PROFILE SHEET ("DO" and "SHOULD" scales I, II, III, and IV, see sample completed PROFILE SHEET.)

LEADER BEHAVIOR PROFILE SHEET



## Appendix H - Continued

Note: At the present time, raw score values are being used for all phases of scoring and profiling the responses to the questionnaire. In the future, ARI will provide conversion charts to convert the raw scale scores to standard scores for profiling. Until such time, care should be taken to be fully aware that the present raw scores are to be understood and interpreted at only a general level. They are not representative of a standardized range of values.

Appendix H - Continued - Sample of Completed Questionnaire and Record Sheets  
Profile Sheet

PLEASE DO NOT PUT YOUR NAME ON THE QUESTIONNAIRE

PART I

INSTRUCTIONS

1. Think of your immediate superior in answering the questions. His rank is E -  W -  O -
2. There are no right or wrong answers. Just answer the questions to the best of your ability. We are interested in your opinions and ideas.
3. Answer the items as follows:
  - (a) Read the statement: \_\_\_\_\_
  - (b) Think about your immediate superior.
  - (c) Circle the letter indicating how often your superior does the thing described in the statement.
  - (d) Circle the letter indicating how often you think he should do the thing described in the statement.

Don't spend a great deal of time on each item. Go ahead and answer each item in turn.

A - Always  
B - Almost Always  
C - Frequently  
D - Sometimes  
E - Infrequently  
F - Almost Never  
G - Never

How Often  
(Does He?)  
(Is)

How Often  
(Should He?)  
(He Be?)

EXAMPLE

- | A B C D <u>E</u> F G | A <u>B</u> C D E F G | He has a military bearing.   |
|----------------------|----------------------|--|
| A B C <u>D</u> E F G | A <u>B</u> C D E F G | 1. He sees that I have the materials I need to work with.            |
| A B C D <u>F</u> F G | A B <u>C</u> D E F G | 2. He rewards me for a job well done.                                |
| A B C D E <u>F</u> G | A B C D E F <u>G</u> | 3. He is selfish.  |
| A B C D <u>E</u> F G | A B C D E <u>F</u> G | 4. He hesitates to take action in the absence of instructions.       |
| A B C <u>D</u> E F G | A B C D E <u>F</u> G | 5. He keeps to himself.  |
| A B <u>C</u> D E F G | A <u>B</u> C D E F G | 6. He schedules the work to be done.                                 |
| A B <u>C</u> D E F G | A B <u>C</u> D E F G | 7. He backs me up in my actions.                                     |
| A B <u>C</u> D E F G | A <u>B</u> C D E F G | 8. He is thoughtful and considerate of me.                           |
| A B C <u>D</u> E F G | A <u>B</u> C D E F G | 9. He seeks responsibility and takes responsibility for his actions. |

Appendix H - Continued

- |                      |                      |  |
|----------------------|----------------------|--|
| A B C <u>D</u> E F G | A <u>B</u> C D E F G | 10. He makes his attitudes clear to me.  |
| A <u>B</u> C D E F G | A <u>B</u> C D E F G | 11. He sees to it that I work up to my capabilities.                                   |
| A B <u>C</u> D E F G | <u>A</u> B C D E F G | 12. He keeps me informed.  |
| A B C D <u>E</u> F G | A B <u>C</u> D E F G | 13. He is aware of my morale and does all he can to make it high.                      |
| A B C <u>D</u> E F G | A B C D E <u>F</u> G | 14. He acts without consulting me.   |
| A B C <u>D</u> E F G | A B <u>C</u> D E F G | 15. He knows me and looks out for my welfare.  |
| A B C <u>D</u> E F G | A <u>B</u> C D E F G | 16. He assigns specific tasks to me.   |
| A <u>B</u> C D E F G | A <u>B</u> C D E F G | 17. He decides what shall be done and how it shall be done.                            |
| A B C <u>D</u> E F G | A B C <u>D</u> E F G | 18. He refuses to explain his actions.   |
| A B C <u>D</u> E F G | A <u>B</u> C D E F G | 19. He lets me know what is expected of me.  |
| A B C <u>D</u> E F G | A B <u>C</u> D E F G | 20. He knows himself and seeks self-improvement.                                       |
| A B <u>C</u> D E F G | <u>A</u> B C D E F G | 21. He keeps me informed of the true situation, good and bad, under all circumstances. |
| A B C D <u>E</u> F G | A <u>B</u> C D E F G | 22. He sets the example.   |
| A B C D <u>E</u> F G | A B C D <u>E</u> F G | 23. He demands results on time without considering my capabilities and welfare.        |
| A <u>B</u> C D E F G | A B <u>C</u> D E F G | 24. He makes sure that I understand his role in the Unit.                              |
| A B C <u>D</u> E F G | A <u>B</u> C D E F G | 25. He looks out for my personal welfare.  |
| A B C <u>D</u> E F G | A <u>B</u> C D E F G | 26. He is technically and tactically proficient.                                       |
| A B C <u>D</u> E F G | A <u>B</u> C D E F G | 27. He is friendly and approachable.   |
| A B C D <u>E</u> F G | A B C D E <u>F</u> G | 28. He distorts reports to make his Unit look better.                                  |
| A B C <u>D</u> E F G | <u>A</u> B C D E F G | 29. He is willing to make changes.   |
| A B C D <u>E</u> F G | A <u>B</u> C D E F G | 30. He trains me as a team member.   |
| A B <u>C</u> D E F G | A B <u>C</u> D E F G | 31. He tried out his ideas on me.  |

Appendix H - Continued

- |                      |                      |   |
|----------------------|----------------------|---|
| A B C <u>D</u> E F G | A B <u>C</u> D E F G | 32. He maintains definite standards of performance.                       |
| A B C D <u>E</u> F G | A B <u>C</u> D E F G | 33. He does things to make it pleasant for me to be a member of the Unit. |
| A B C D E <u>F</u> G | A B <u>C</u> D E F G | 34. He has a good working relationship with others at his level.          |
| A B C <u>D</u> E F G | A <u>B</u> C D E F G | 35. He gives advance notice of changes.                                   |
| A B <u>C</u> D E F G | A B <u>C</u> D E F G | 36. He establishes and maintains a high level of discipline.              |
| A B C <u>D</u> E F G | <u>A</u> B C D E F G | 37. He is easy to understand.   |
| A B C D <u>E</u> F G | A B C D E F <u>G</u> | 38. He criticizes me in front of others.                                  |
| A B C D E <u>F</u> G | A B C D E <u>F</u> G | 39. He resists changes in ways of doing things.                           |
| A B C D <u>E</u> F G | A B <u>C</u> D E F G | 40. He treats me as his equal.  |
| A B C D <u>E</u> F G | A <u>B</u> C D E F G | 41. He utilizes me in accordance with my capabilities.                    |
| A B <u>C</u> D E F G | A B <u>C</u> D E F G | 42. He asks that I follow standard rules and regulations.                 |
| A B C D E <u>F</u> G | A B C D E F <u>G</u> | 43. He treats me in an impersonal manner--like a cog in a machine.        |
| A B C <u>D</u> E F G | A B <u>C</u> D E F G | 44. He takes appropriate action on his own.                               |
| A B C <u>D</u> E F G | A <u>B</u> C D E F G | 45. He makes sound and timely decisions.                                  |
| A B <u>C</u> D E F G | <u>A</u> B C D E F G | 46. He approaches each task in a positive manner.                         |
| A B C D E <u>F</u> G | A B <u>C</u> D E F G | 47. He puts suggestions I make into operation.                            |
| A B C D <u>E</u> F G | A B <u>C</u> D E F G | 48. He lets me share in decision making.                                  |
| A B C D <u>E</u> F G | A <u>B</u> C D E F G | 49. He has a good working relationship with his superiors.                |
| A <u>B</u> C D E F G | A <u>B</u> C D E F G | 50. He encourages the use of standard procedures.                         |



Appendix 1. - Continued

- A B C D E F G    A B C D E F G    51. He is technically competent to perform his duties.
- A B C D E F G    A B C D E F G    52. He assigns me to particular tasks.
- A B C D E F G    A B C D E F G    53. He insures that tasks are understood, supervised, and accomplished.

## RECORD SHEET

For "DO" responses only  
(left-hand column of responses)

SCALE		TOTAL																								
I.	Task Professionalism	1	4	6	5	11	6	16	4	21	5	26	4	31	5	36	5	41	3	46	5	51	5	53	4	(55)
II.	Task-Oriented Consideration	2	3	7	5	12	5	17	6	22	3	27	4	32	4	37	4	42	5	47	2					(41)
III.	People-Oriented Consideration	3	*6	8	5	13	3	18	*4	23	*5	28	*5	33	3	38	*5	43	*6	48	3					(45)
IV.	Personal/ Interpersonal Professionalism	4	*5	9	4	14	*4	19	4	24	6	29	4	34	2	39	*6	44	4	49	3					(42)
V.		5	*4	10	4	15	5	20	4	25	4	30	3	35	4	40	3	45	4	50	6	52	5			( )

Items marked with an asterisk (\*) are scored as follows:

A B C D E F G  
1 2 3 4 5 6 7

All other items are scored as follows:

A B C D E F G  
7 6 5 4 3 2 1

RECORD SHEET

For "SHOULD" responses only  
(right-hand column of responses)

SCALE		TOTAL																								
I.	Task Professionalism	1	6	6	6	11	6	16	6	21	7	26	6	31	5	36	5	41	6	46	7	51	7	53	6	(73)
II.	Task-Oriented Consideration	2	5	7	5	12	7	17	6	22	6	27	6	32	5	37	7	42	5	47	5					(57)
III.	People-Oriented Consideration	3	7	8	6	13	5	18	4	23	5	28	6	33	5	38	7	43	7	48	5					(57)
IV.	Personal/ Interpersonal Professionalism	4	6	9	6	14	6	19	6	24	5	29	7	34	5	39	6	44	5	49	6					(58)
V.		5	6	10	6	15	5	20	5	25	6	30	6	35	6	40	5	45	6	50	6	52	6			( )

Items marked with an asterisk (\*) are scored as follows:

All other items are scored as follows:

A B C D E F G  
1 2 3 4 5 6 7

A B C D E F G  
7 6 5 4 3 2 1

LEADER BEHAVIOR PROFILE SHEET

